CEO PRIVATE FIRM EXPERIENCE AND IDIOSYNCRATIC RISK

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Keywords: *CEO Private Experience*; Employment Experience; Idiosyncratic Risk; Investments; Political Risk, Corporate Social Responsibility

JEL Classification: G3, M1, Z

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"Jobs shape us as much as we shape our jobs"[1]

1. INTRODUCTION

Chief executive officers (CEOs) and their educations, experience, personal characteristics, and management styles have lasting effects on corporate strategies and performance (see Finkelstein and Hambrick, 1996; Bertrand and Schoar, 2003; Zhang and Rajagopalan, 2004; Adams, Almeida, and Ferreira, 2005; Bennedsen, Perez-Gonzalez, and Wolfenzon, 2008; Custódio and Metzger, 2013; 2014; Roussanov and Savor, 2014; Reina, Zhang, and Peterson, 2014; Benmelech and Frydman, 2015; Falato, Li, and Milbourn, 2015; Li and Patel, 2019). Work experience affects the CEO's management style and thus corporate policies (Custódio and Metzger, 2013; 2014; Benmelech and Frydman, 2015; Schoar and Zuo, 2017). Accordingly, the *upper echelon theory* suggests that managers' background characteristics, such as experiences affect their psychological makeup, i.e., belief system and values, and their psychological makeup affects their choice of corporate policies (Hambrick and Mason, 1984; Hambrick, 2007). One of the key effects of managerial value systems and styles is on corporate risk-taking and risk management. For example, the literature shows that CEOs with early military experience adopt conservative corporate policies and demonstrate ethical behavior (Benmelech and Frydman, 2015); industry-expert CEOs negotiate better deals and pay a lower target premium (Custódio and Metzger, 2013); financial-expert CEOs use project-specific (vs. one-for-all) discount rates, manage financial policies more actively, and manage to raise funds during tight credit

[1] Heskett, J., 2010. What do you think? To what degree does the job make the person? HBS Working Knowledge –https://hbswk.hbs.edu/item/to-what-degree-does-the-job-make-the-person

conditions (Custódio and Metzger, 2014); managers whose careers begin during recession adopt conservative investment styles and focus on cost-cutting (Schoar and Zuo, 2017); and unmarried CEOs take higher investment risks and do a poor job of managing idiosyncratic risk (Roussanov and Savor, 2014). Further, Roussanov and Savor suggest that idiosyncratic risk has policy implications, as it negatively affects a firm's tangible and intangible investments.

I investigate whether the extent of CEO *private-firm experience* (i.e., the relative extent of their employment experience in *nonpublicly traded* firms; henceforth, CEO *private experience*) affects corporate policies such as those for risk-taking and risk management. This study makes two key contributions to this literature. First, it considers another critical attribute of CEOs, earned through their prior work experience, that affects corporate policies and idiosyncratic risk. Second, corporate social performance is decreasing in CEO private experience and the management of reputational risk as evidenced by corporate social performance has important implications for firms, as consistent with prior literature, I find it significantly affects idiosyncratic risk - potentially affecting the long-term sustainability and value of the firm. Related to this, firm-level political risk is a positive function of *CEO private experience*, which in turn contributes to exacerbating the firm's idiosyncratic risk.

While analytical and significant empirical evidence suggests that a corporate executive's background is associated with firm policies and outcomes such as risk-taking and risk management, there is little guidance from the literature on why and how the past private (closely held and nonpublicly traded) firm experience of current CEOs of

public firms shapes corporate policies and outcomes. There is limited empirical research in the mainstream corporate strategy and finance literature that examines private firms, largely due to the lack of databases allowing significant archival research, let alone data on CEO private-firm work experience. However, most private firms are individual or family-owned and operated, and in a private firm, owners' wealth and social status are strongly attached to the firm itself, as is the case in family-controlled firms. Therefore, 'family-controlled firms' and 'privately owned firms' likely behave in the similar manner and the literature on the effect of 'family ownership or family CEOs' on corporate policies likely provides some guidance. Van Essen *et al.* (2015) examine the performance of private (unlisted) and publicly listed family firms and find that both private and public family firms operate in a roughly similar manner; however, the positive performance of family firms is an outcome of both family and market oversight. One of the key effects of capital market oversight can be on a firm's propensity to take investment risk, as well as on its tendency to adopt risk management strategies, such as insulating firms from reputational and political risks.

The socially responsible investing literature shows a direct effect of capital markets on firm CSR performance. For example, exclusionary screening by socially responsible funds reduces capital market demand for the securities of socially irresponsible firms (e.g., Heinkel *et al.*, 2001; Hong and Kacperczyk, 2009), thus increasing the reputational risk of socially irresponsible firms and the required rates of return for their securities (El Ghoul *et al.*, 2011; Goss and Roberts, 2011). This literature suggests that a decrease in corporate social responsibility can have a significant positive effect on firm risk. Similarly,

the literature suggests political risk as a significant contributor to a firm's return volatility (Hassen *et al.*, 2019) and expected returns (Gorbatikov *et al.*, 2019); and political connections help reduce a firm's risk and required rates of return (Boubakri *et al.*, 2012). This suggests that the lack of capital market oversight may leave ample room for private firms to overlook spending in reputational and political risk management.

Behavioral agency theories predict that the choice of corporate policies is a function of an owner/manager's existing socioeconomic status and wealth embedded in the firm. Under this theory, a family owner/manager would likely shun business risk, even at the cost of performance, to preserve the entitlement to socioemotional wealth that she/he derives from the family business (Gómez-Mejía *et al.*, 2007; Wiseman and Gómez-Mejía, 1998; Miller, Le Breton-Miller, and Lester, 2011; Chrisman and Patel, 2012). This theory predicts that the owners of family (or closely held) firms are very likely to avoid investment in risky assets to protect their desire for belongingness and continuation of the family dynasty and values. These firms may instead embrace conservatism in their investment and spending behavior, therreby eschewing discretionary expenses. Existing literature provides significant evidence to this effect: for example, family firms take a conservative investment approach and invest less in intangibles such as R&D (Anderson, Duru, and Reeb, 2012), demonstrate lower R&D intensity (Muñoz-Bullón and Sanchez-Bueno, 2011), private family firms often adopt conservative and risk-averse strategies (Carney *et al.*, 2015), and family firms take a conservative approach when investing in innovation (Duran *et al.*, 2016). Apart from this, the empirical evidence in Schoar and Zuo (2017) supports the idea that "*a portion of a manager's style is fixed long before the manager*

becomes CEO" (P. 1426) and that recession forces managers to find jobs in smaller private firms. The work in private firm likely conditions them to invest less in capital expenditure and R&D activities, and results in reduced overhead and thus lower SG&A expenses. While it is unclear in Schoar and Zuo (2017) whether *recession* conditions such managers toward conservatism in spending and investments or their *forced work experience at private firms* does so, one cannot rule out the possibility that this effect originates from employment at the private firm.

Similarly, the literature suggests that firms may tend to manage political risk by lobbying politicians or donating to political parties (Tullock 1967; Peltzman 1976). Research suggests that "*in the presence of a fixed cost of channeling political contributions, it is efficient for a lobby to be formed by the largest firms in a sector*" (Bombardini 2008, p. 329), and such lobbying is indeed favored more among larger firms (Hassen *et al*., 2019). Private firms are generally smaller and likely frugal, and this literature implies that political risk in private firms likely goes unmanaged and that such firms lack the ability to engage in valuable political lobbying.

I argue that a) the lack of capital market oversight and smaller size likely makes overlooking reputational risk management and political lobbying optimal policy for private firms; b) the wealth of owners of private firms is closely tied to their businesses (as is the case in family firms), supporting a tendency in private firms to avoid discretionary expenses and investments, such as investment in such intangibles as knowledge capital (R&D), organizational capital, reputational risk management (e.g., CSR performance) and political risk management (such as lobbying). This evidence

suggests that private firms, being similar to closely held (family) firms, are likely to focus on cost-cutting and to adopt a conservative investment strategy.[2] These arguments have two implications for CEOs that have accumulated significant experience in private firms: First, such CEOs are likely to be conditioned by the conservative (rather than risk-taking) investment and cost-cutting behavior of private firms; thus, they are likely to pursue less investment risk. Under this view, firms managed by CEOs with significant private-firm experience (henceforth, *Private CEOs)* are likely to demonstrate lower idiosyncratic risk. Second, Schoar and Zuo (2017) conclude that recession effects such as cost-cutting, lower investment in intangibles are largely driven by inherent feature of CEOs' first job, which is more likely to be in smaller private firms. If *Private CEOs'* overhead-cutting behavior affects expenses that may help manage reputational risk such as CSR and political risk, such CEOs may implicitly avoid investment in valuable risk management activities (such as CSR activities and political lobbying). [3] Under this view, the idiosyncratic risk of firms run by *Private CEOs* likely goes unmanaged due to such managers' impulse preferences for cutting overhead expenses that could represent valuable investments in CSR activities and political risk management. Therefore, the association of the extent of CEO *private experience* with idiosyncratic risk is an empirical question.

[2] In a sample of 5,049 unlisted (private) industrial firm-years, extracted from Bureau van Dijk (OSIRIS), matched to publicly traded firm-years from the same year with comparable size and industry, I also find that total R&D expenses scaled by sales of private firms (treatment group) is almost half that of the matching sample of publicly traded firms (control group). This provides some initial evidence supporting the arguments that much like family firms, private firms shun investment in R&D projects.

[3] Not surprisingly, the literature finds that firm overheads (i.e., SG&A expenses) are positively associated with CSR strengths (Di Giuli and Kostovetsky, 2014), such that a portion of the increase (decrease) in overhead boosts (reduces) firm investment in CSR activities.

I use a sample comprising ExecuComp firms from 1993 to 2016, and to examine this empirical question, I consider CEO work experience from 1945 onward as recorded in their BoardEx CVs. To estimate the extent of CEO *private experience*, I count the number of months an executive worked in nonpublicly traded (i.e., private) business entities and divide this number by total months of employment experience gained over the CEO's lifetime as of the beginning of the CEO-year. Private-firm experience is a significant part of the work history of many U.S. CEOs. Notably, approximately 82.3% of the CEOs in the current sample have worked at least one month in private firms, and 50% of the CEOs demonstrate that at least 36.3% of their total work experience is in private firms. I find that the extent of CEO *private experience* is positively associated with idiosyncratic risk. Because CEO work experience is known to the corporate board (and hiring consultants) at the time of hiring, such an association may simply be due to the tendency of riskier firms (or their consultants) to hire *Private CEOs* such that it might simply be capturing firm-specific heterogeneity. It is understood that the endogenous matching of firm (board) goals and CEO characteristics cannot be ignored. This very reason makes it difficult to claim a causal relationship between the extent of CEO *private experience*, firm policies, and risk. However, to mitigate this identification issue, I control for firm characteristics, year effects and industry effects in regression tests and account for several additional CEO characteristics that may affect CEO risk-taking behavior. To further account for unobserved CEO and firm-specific heterogeneity, I use time-invariant CEO effects along with year effects, time-invariant firm effects along with year effects and time-invariant firm–CEO pair effects along with year effects. The sensitivity of

idiosyncratic risk to the extent of CEO *private experience* remains positive and significant in accounting for these time-invariant CEO and firm effects. Moreover, I use two different sets of instrumental variable tests using two different instruments, *RecessionStart* as an exogenous shock to early career potential for high paid corporate (public) jobs; and College-PVT-INTENSITY representing mean divided by standard deviation of *private experience* of all CEOs graduating with their first post-secondary degree from a college located within the first two digit U.S. Zipcode of the CEO's college. In using these instruments as exogenous predictor of *CEO private experience*, the predictions of this research continue to hold suggesting that the association of the extent of CEO *private experience* with idiosyncratic risk is not seriously vulnerable to potential endogeneity issues. Because CEO's private firm work experience is observable to selection committee (or board), possible selection of CEO's that match board's choice cannot be fully ruled out; however, survival of our results in these identification tests, at minimum, suggests that there is something unique about CEO style embedded in *CEO private experience* that affects policies that positively affect the firm's *idiosyncratic risk*.

Next, I attempt to find the source of this positive association between the extent of CEO *private experience* and *idiosyncratic risk*. First, this research shows that *Private CEOs* do not purposely undertake capital and intangible investments that are *a priori* expected to increase idiosyncratic risk. The total investment of the firm is decreasing in the extent of CEO *private experience* but with weak significance; however, R&D and advertising expenses, organizational capital, and knowledge capital are strongly significantly decreasing in the extent of CEO *private experience*. While these results are consistent with

the CEOs impulse response to learning from cost-cutting behavior of private firms they likely worked for, they do not explain the positive association of the extent of CEO *private experience* with idiosyncratic risk. What explains the higher idiosyncratic risk in firms managed by *Private CEO*s? To answer this question, further analysis shows that, possibly conditioned by their private-firm experience, *Private CEOs* fail to manage risk by not recognizing important investments in i) enhancing firm corporate social responsibility (CSR), consequently ignoring the adequate management of reputational risk and ii) shielding firms from the potential effect of political risk. To this end, first, I find strong evidence that the extent of CEO *private experience* is associated with poor CSR performance and that the extent of *CEO private experience* positively affects idiosyncratic risk through the channel of the lack of CSR. Second, I present strong evidence that political risk increases with the extent of CEO *private experience* and that the lack of political risk management is another significant channel through which CEO *private experience* elevates a firm's idiosyncratic risk. Therefore, I conclude that conditioned by the investment, spending and lobbying behavior of private firms, *CEOs* with significant private-firm experience let idiosyncratic risk go uncontrolled by overlooking valuable investments in firms' reputational (CSR performance) and political risk management. The prior empirical literature (Panousi and Papanikolaou, 2012; Roussanov and Savor, 2014) suggests that the management of idiosyncratic risk is important for firms because such risk hurts a firm's ability to finance future capital investments; therefore, it is optimal for corporate boards to monitor the behavior of *Private CEOs*.

2. DATA AND RESEARCH DESIGN

This research covers a 1993 to 2016 sample of annual CEOs represented in the S&P ExecuComp database who have CVs available in the BoardEx database. Starting with an initial sample of 8,080 CEOs, due to the lack of a common identifier between the two databases, I manually match these ExecuComp-sampled CEOs to BoardEx director profiles. This process returns 6,740 matching profiles. The remaining 1,340 CEOs stay unmatched to BoardEx director profiles. I investigate the "employment experience" portion of CEO CVs and focus on their lifetime work experience by organization type attained prior to each firm-year in question. BoardEx identifies ten organization types: armed forces, charities, government, clubs, medical, partnership, private, quoted, sporting and universities. I note that approximately 94% of S&P 1500 CEOs' lifetime work experience is in private (39.65%) and publicly traded (54.52%) business organizations. The other organization types in the employment file of BoardEx CVs represent less than 6% of the aggregate work experience of these CEOs.

The proxy of the extent of CEO *private experience* is computed as the CEO's lifetime employment experience in private business entities (in months) as a percentage of her/his lifetime total employment experience gained until year T-1 (including the experience gained during the tenure as CEO of the current firm). Thus, the extent of CEO *private experience* changes with every month of tenure as CEO (see Internet Appendix-Table B.1 as an example of how CEO-*PVTEXP* is estimated). I argue that private firms are relatively smaller and are secluded from significant monitoring of their performance and policies by capital markets, media, analysts, and regulatory organizations. Such firms

have different priorities, cultures, and abilities as far as their management of reputational and political risk. By spending significant time working for private firms, the current CEO of one of the S&P 1500 firms likely carries a personality conditioned by the culture and investment strategies of such firms. To create the extent of CEO *private experience* (*CEO-PVTEXP*), I exploit CEOs' BoardEx CVs and generate their lifetime past work experience by organization type by counting the number of months a CEO has worked in a type of organization in the past. I account for the start and end dates of each employment type from 1945 until 2016. As expected, some CEOs start as CEOs of private firms that eventually go public (for example, Jeff Bezos of Amazon and Mark Zuckerberg of Facebook). BoardEx identifies pre-IPO work experience of such CEOs as 'private' and post-IPO as 'quoted' (publicly traded) firm experience. Therefore, I account for such experience as reported in the BoardEx CVs, i.e., private pre-IPO and public post-IPO. Internet Appendix-Table B.1 outlines an example showing the *CEO-PVTEXP* estimation, assumptions, and some limitations of this process. Next, I match these CEO-years back to the ExecuComp database that includes only the firm-years featuring CEOs with matching BoardEx profiles. For these matched firm-years, I extract financial and market data from Compustat annual files and the Center for Research in Security Prices (CSRP) monthly files (going up to year 2017 for dependent variables). The final sample includes 35,189 firm-years of data for the CEOs featured in firms' annual reports, involving 6,616 CEO-firm combinations for 3,291 firms and 6,283 CEOs. Of these, approximately 555 (of 35,189) firm-years have a missing value for CEO *private experienc*e.

I believe that this proxy for the extent of CEO *private experience* appropriately accounts for the relative work experience in private firms for CEOs over their lifetimes. Two potential limitations are as follows: First, I am not able to track the number of hours or days worked for multiple employments reported in CEO CVs that might overlap the same period. Therefore, it is likely that a period of the work life of some CEOs might be double-counted if the BoardEx employment file reports more than one running job at the same time. However, this omission is less concerning because a) such an overlap is expected to affect only a small number of CEOs, if any, and b) such an overlap, if it exists with respect to work experience in private firms, affects both the numerator and the denominator (total experience) by an equal magnitude, thus mitigating some effect from double-counting. Second, there are several cases where the employment end date is noted as continuing (or missing). For such observations, I assume employment continues until the end period of the data. Third, as I indicated, I do not track days of work; instead, I assume that employment starts at the end of the reported month and terminates at the end of the reported month. Hence, there might be a possibility of some overstatement (e.g., the work that starts close to the end of the month and ends at the beginning of the month) or understatement (e.g., the work that starts at the beginning of the month and ends at the end of the month) of the CEO's lifetime work experience. However, this over(under)statement likely has a negligible effect.

[Insert Table 1 here]

In Table 1, the proxy of the extent of CEO *private experience* is rather evenly represented around the overall mean of 39.65% over time; thus, this could be interpreted as evidence that these omissions have little effect, if any, in *CEO-PVTEXP*. In untabulated results (see Internet Appendix - Table B.5), a median CEO represented in the sample has spent approximately 36.3% of her/his lifetime of work experience as an employee of a private firm; more so, 82.2% of CEOs have at least one month of private-firm experience. Thus, the business cultures and values of private firms, which affect employee values and beliefs, have a significant likelihood to pass that influence on to the policies and strategies of publicly traded corporations via their top executives. *Therefore, the key question is, Does the extent of CEO private experience affect a firm's policies with outcomes for risk, investment, and intangibles?*

I create several other key variables that enter tests as dependent and test variables. While the goal is to study the effect of *the extent of CEO private experience* on idiosyncratic risk, I compute proxies of total volatility and idiosyncratic volatility using, respectively, weekly total returns for 52 weeks and residuals from the market model for the same 52 weeks, consistent with Roussanov and Savor (2014). Second, in a similar manner, I measure two proxies of corporate investments, which are total investment estimated as the ratio of tangible (capital expenditure) plus intangible (R&D and advertising) expenses to total assets. Third, I estimate a proxy for the firm's overall CSR performance and its components consistent with El Ghoul *et al.* (2011) with widely used KLD-CSR ratings. Fourth, I extract a proxy of the *extent of political risk estimates* as per Hassen *et al.* (2019)

from https://www.firmlevelrisk.com/ and scale [these estimates] by annual sample standard deviations to produce standardized estimates for risk proxies.

Because the key dependent variable, "idiosyncratic risk", is similar to that of Roussanov and Savor (2014), I construct several control variables consistent with this study and add some additional and important CEO characteristics, which are CEO education, measured as 1 if BoardEx reports the CEO has completed an MBA or a Ph.D. degree (MBAPHD) or both; the extent of the CEO's foreign experience (CEO-FOREXP), as foreign experience may carry with it cultural differences in risk-taking; and, because industry competition may affect both risk-taking incentives and equity return volatility, a proxy of industry concentration (Herfindahl). In other words, to start with, I augment the Roussanov and Savor (2014) specifications by adding a couple CEO traits and one competitive characteristic for the baseline empirical specification. While untabulated for brevity (see Panel A, Internet Appendix-Table B.5), the average firm in the sample has total return volatility of approximately 5.7% and idiosyncratic volatility of approximately 4.9%. The sample CEOs have, on the average, spent approximately 39.65% of their time working for private firms and approximately 54.62% of their time working for publicly traded firms. The median firm is financed 21% by debt, holds approximately 1.7 billion dollars in total assets, has a return on assets of approximately 12%, is valued at approximately 1.48 times the book value of assets, is approximately 17 years old and features at least one institutional owner. The median CEO is approximately 56 years old, has approximately 6 years of total tenure at the current firm, and holds over 9 million

dollars of wealth in the firm in the form of vested shares and the value of unexercised options. Furthermore, 57% of CEOs also serve as chairperson of the board, over 29% have completed either an MBA or a Ph.D. degree, and the average foreign experience of CEOs is approximately 4%. The explanatory variables do not appear to show unusually high pairwise correlations (see Panel B, Internet Appendix-Table B.5).

3. CEO PRIVATE FIRM EXPERIENCE AND IDIOSYNCRATIC RISK

3.1 Main Evidence

I first divide sample firms into two groups, above the average and below the average of the extent of CEO *private experience* (0.3965), and classify firms that are higher than average for the extent of CEO *private experience* as managed by *Private CEOs* and others as managed by *Nonprivate CEOs*. The firms managed by *Private CEOs* have approximately 2.32% (i.e., 11.1 basis points) higher *IdVol* (significant with $p= 0.0424$) than the firms managed by *Nonprivate CEO*s. At this point, it is also worth mentioning that smaller and younger firms are more likely to host CEOs with higher private-firm experience. Additionally, CEOs lacking MBAPHD and surprisingly, younger CEOs, appear to have lower private-firm experience. Apart from this, the industry fixed effect is significant in the extent of CEO *private experience*. The tests, as discussed in later sections, account for all of these effects, among others.

[Insert Table 2 here]

Table 2 presents the test of key research questions about the firm risk implications of the extent of CEO *private experience* in a multivariate setting by controlling for firm/CEO characteristics, year effects, and industry effects. The dependent variable is observed for the year immediately following the year in which *CEO-PVTEXP* is observed. This lag is important, as the estimation process of idiosyncratic volatility utilizes 52 weekly returns from the beginning to the end of the year. I start by first discussing the coefficients of several control variables. Among the firm characteristics, *IdVol* is significantly increasing in Leverage *(p=0.0000)*, Q *(p=0.0000)* and lagged volatilities *(p=0.0000),* suggesting a higher idiosyncratic risk for higher-leveraged and higher-Q firms, and decreasing in LogAssets *(p=0.0000)*, ROA *(p=0.0000)*, FirmAge *(p=0.0000)* and InstOwners *(p=0.0540),* suggesting that firms that are larger, operationally better performing, older and feature institutional blockholders in their ownership structures demonstrate lower *IdVol*. These findings are very similar to those observed in the related literature. Among the CEO characteristics, *IdVol* is significantly decreasing in CEO Age *(p=0.0001)* and Wealth *(p=0.0000),* suggesting that firms with older CEOs and those holding higher firm-specific wealth do a better job managing their idiosyncratic risk. Turning to the key test variable, after controlling for these firm and CEO characteristics, industry effects and year effects in model 1, idiosyncratic risk is positively associated with the extent of CEO *private experience* (*CEO-PVTEXP*) *(p=0.0117)*. Economically, with a coefficient of 0.1268, a change in *CEO-PVTEXP* from p.25th to p.75th increases idiosyncratic risk by approximately 1.5%.

Arguably, by controlling for firm characteristics, I attempt to isolate the effect on idiosyncratic risk of observable firm-specific heterogeneity, and by controlling for CEO characteristics, the potential effect due to heterogeneity in other common CEO features. In model 2, excluding all firm-specific controls and keeping only CEO-specific controls and fixed year and industry effects, the size (coefficient 0.5642) and significance of the coefficient of *CEO-PVTEXP (p=0.0000)* increases, suggesting that the firm-specific controls undermine the association of the extent of CEO *private experience* with firm risk. This also points to the possibility that more risk-prone boards may tend to match CEOs with higher private-firm experience or that typical CEO–firm matching exists. Because the key test variable in model 1 maintains its economic and statistical significance upon controlling for the known firm-specific heterogeneity, it suggests that the extent of CEO *private experience* has a unique association with firm idiosyncratic risk. Later, in this section, the potential effect of time-invariant unobservable heterogeneity in firm and CEO characteristics is discussed.

In the earlier section, we learned that BoardEx identifies the pre-IPO work experience of CEOs as private, and it identifies the post-IPO work experience of CEOs as quoted (publicly traded) firm experience. However, in recording the information from the CVs of such a large number of CEOs, occasional errors are rather unescapable. Therefore, despite efforts in checking data and cleaning it for duplicates and errors, it is likely that the experience of some CEOs at private firms turns out to be erroneously overstated or understated other than potential under- or overstatement due to the estimation assumptions described in Internet Appendix-Table B.1. For example, a private

firm that goes public might continue to be erroneously identified in BoardEx as being private post-IPO. In an effort to alleviate the potential effect of such possibility, in models 3 to 4 of Table 2, I use the *Private CEO* dummy as the key test variable. *Private CEO* is 1 for a firm-year if *CEO-PVTEXP* is higher than the sample average and zero otherwise.[4] In these models, *Private CEO* continues to load with a positive and significant coefficient *(p=0.0448),* suggesting that these results are not meaningfully driven by such potentially hidden errors. The coefficient of 0.059 in model 3 suggests that compared to *Nonprivate CEOs*, *Private CEOs* (as defined) may contribute about a six basis point increase in idiosyncratic risk, which is approximately 1.26% of the sample average of IdVol.[5]

3.2 Identification Issues

The main specifications in Table 2 control for the key firm, CEO, time and industry characteristics to isolate the association of the extent of CEO *private experience* with firm idiosyncratic risk. The selection of these controls is consistent with the existing literature (Russounav and Savor, 2014). Further, as a standard correction, the test statistics are based on cluster-robust (by firm) standard errors. Nevertheless, the concern that these findings are simply a manifestation of risky firms consciously matching to CEOs with

[4] For example, employee X worked for 120 months for private company ABC, and employee Y for private company DEF. At that time, these private companies go public, and X and Y continue to work for another 60 months for their respective companies before accepting CEO positions in new companies WXY and MNP. In this case, BoardEx fails to recognize and record company ABC as quoted post-IPO, and CEO X's private-firm experience would look like 100%, while that of CEO Y would look like 67%. However, because both CEOs have higher-than-average values for private-firm experience, both would continue to be recognized as *Private CEOs*.

[5] Idiosyncratic volatility is a subset of total volatility (ToVOL), which is not systematically driven by market volatility. I have repeated the main tests using total volatility measured as the standard deviation of 52 weekly raw (unadjusted) total returns. The results, untabulated for brevity, show that total volatility is also strongly increasing in the CEO's private firm experience (see Internet Appendix – Table B.2).

certain characteristics, e.g., private-firm experience, among other things, remains unaddressed. The specifications in Table 2 may be suspects for a failure to mitigate this possibility fully for two reasons: a) the possibility that idiosyncratic risk affects firms' choices of certain attributes of new CEOs such that unobserved attributes of CEOs are correlated with the extent of CEO *private experience,* and b) the effect of unknown firm-specific heterogeneity apart from heterogeneity in known characteristics driving the selection of such CEOs by risky firms. First, our initial specifications use a healthy set of CEO characteristics apart from other controls, yet some perceivably relevant CEO characteristics remain unincluded. For example, CEO overconfidence, CEO ability (Malmendier and Tate, 2005; 2009; Custódio *et al.*, 2013; Demerjian, Lev, and McVay, 2012) and marital status as in Roussanov and Savor (2014) and Hegde and Mishra (2019). Therefore, in models (1) and (2) of Table 3, I include *Holder67*, an option-based proxy of CEO overconfidence estimated as per Malmendier and Tate (2005); *General Skills*, representing diversity in work experience (Custódio *et al.*, 2013), approximated in the current research as the first principal component of a) number of major jobs, b) number of firms and countries served, c) number of months of total experience, d) dummy representing prior CEO experience at another firm; *Managerial Ability* estimated as per Demerjian, *et al.* (2012); and to account for the potential likelihood of married vs. unmarried CEO, the variation in divorce laws across states that make divorce expensive for high-earning couples (headquarters of the firm in community property law states, *CP*

Divorce Laws[6]). In models (1) and (2), while only two of these four CEO characteristics (i.e., *Holder67*, negatively *(p=0.0000)* and *CP Divorce Laws*, positively *(p=0.0364)*) appear significantly associated with *IdVol*, both *CEO-PVTEXP (p=0.0132)* and *Private CEO (p=0.0399)* continue to load with positive and significant coefficients. In this analysis, key findings of this research continue to hold, partially mitigating the concern that a lack of accounting for some of these observable CEO attributes might have contributed to the results observed in Table 2.

[Insert Table 3 here]

Because the key test variable varies over CEO tenure within the firm, and of course, for a small number of CEOs who served for multiple firms within the sample, I include CEO fixed effects in model (3) to account for the potential effect from time-invariant unobservable CEO heterogeneity. In doing so, the proxy of *CEO-PVTEXP* loads with a positive and significant *(p=0.0157)* coefficient (see column 3), further alleviating this concern. The upshot of this analysis is that the presence of observed or unobserved

[6] A direct proxy for marital status for a large part of sample period is unavailable, hence, I opted to account for the exogenous possibility of choosing no marriage as opposed to marriage given state divorce laws. As expected from the literature (e.g., Roussanov and Savor, 2014), *CP Divorce Laws*, which points to a likely choice of remaining single by high-earning individuals (e.g., CEOs), loads with a positive and significant coefficient vs. idiosyncratic risk.

heterogeneity in CEO attributes that could likely be correlated with both *CEO-PVTEXP* and idiosyncratic risk has not driven the findings of this research.[7]

Second, one may argue that this does not fully mitigate the potential effect of firm-specific time-invariant unobservable heterogeneity. Therefore, in models (4) and (5), I use panel tests with year and firm-fixed effects and control for the lagged value of idiosyncratic risk. This panel framework helps mitigate the potential effect of past idiosyncratic risk on future idiosyncratic risk, as well as the effect of unknown firm-specific heterogeneity in matching CEOs to risky firms. In using these tests, *CEO-PVTEXP* (model 4, *p=0.0601)* and *Private CEO* (model 5, *p=0.0431)* continue to demonstrate a positive and significant association with *IdVol*, alleviating the concern that firm-specific heterogeneity drives the association between the extent of CEO *private experience* and idiosyncratic risk. I acknowledge that in model (4), the p-value of the coefficient of *CEO-PVTEXP* is 0.0601 using a two-sided test, but it is 0.0301 using a one-sided test that validates the core findings in Table 2. These panel fixed effect models utilize cluster-robust standard errors by firms. Third, to further alleviate the effect of

[7] One of the observable CEO attributes that could be considered a likely cause for the observed association between CEO private firm experience and idiosyncratic risk is the CEO's potential entrepreneurial drive. For example, Marc Zuckerberg- and Jeff Bezos-type entrepreneurial CEOs, who start their firms as private ventures (which are naturally high-risk endeavors), remain CEOs from inception and in their capacity as CEO, they navigate such firms through the IPO process and continue serving as CEO for an extended period post-IPO. There are a nontrivial number of such CEOs in S&P 1500 firms, whose private firm experience specifically represents an entrepreneurial CEO position. To mitigate the concern that such CEOs likely drive the results, in untabulated tests (see Internet Appendix - Table B.4) I control for an IPO CEO indicator variable (representing about 5.8% firm-years in the current sample) and find that the IPO CEO indicator variable does not load with a significant coefficient, while the key findings remain the same. Further, these results continue to hold in adding another proxy of CEO entrepreneurial drive measured as the *CEO at PrivateFirm* indicator variable, which represents a CEO of an S&P 1500 firm who demonstrates professional experience as the CEO of a private firm during his/her lifetime irrespective of whether s/he was an IPO CEO (representing about 10.49% firm-years in the current sample).

time-invariant CEO-firm attributes that might potentially have affected these results due to firm-CEO matching, in model (6) I use CEO-firm pair fixed effects; these effects allow us to observe the effect of only that portion of CEO *private experience* that linearly decreases as CEO tenure in the firm increases (e.g., see Internet Appendix-Table B.1). In this model, *CEO-PVTEXP* continues to load with a positive and significant coefficient *(p=0.0265)* upon accounting for CEO-firm pair fixed effects.

The above analysis accounts for potential effects of observed and unobserved heterogeneity in firm and CEO characteristics. To further alleviate the concern of risky firms' deliberate matching of such CEOs and potential for selection bias, Panel B of Table 3 presents an instrumental variable analysis. In using the instrumental variable approach, I exploit an exogenous shock to early career potential for corporate jobs based on two different instruments (*RecessionStart* & *College-PVT-INTENSITY)*. First, *RecessionStart* indicator variable[8], as at the start of recession the professional job seekers likely have a difficult time landing a high paying corporate (public firm) employment as such they likely resort to accept a lesser paid, private firm jobs (Schoar and Zuo, 2017). I select two potentially exogenous early career events to generate the *RecessionStart* dummy: a) coincidence of the start of recession and potential year of graduation from the post-secondary (4-year degree) institution. I assume, at this time an individual's age is about 22 years (i.e., running into 23 years), b) coincidence of the start of recession and potential

[8] As per NBER dating committee, "*A recession is a period between a peak and a trough, and an expansion is a period between a trough and a peak. During a recession, a significant decline in economic activity spreads across the economy and can last from a few months to more than a year.*" (Please see, https://www.nber.org/cycles/recessions.html)

change in the first job. I assume this to be at the age of 25 years, because individuals are likely to complete professional certifications and change their first job in about three years of starting it. Therefore, *RecessionStart* is 1 for the CEO, who was either 22 years old or 25 years old at the time of the start of a recession.[9] Schoar and Zuo (2017) conclude that recession effects on CEO's style are "*largely driven by the characteristics of the CEO's first job*", and "*recession CEOs tend to start in smaller or private firms*", I expect that *RecessionStart* to affect *CEO-PVTEXP* positively and that its effect on firm's *idiosyncratic risk* through a channel other than CEO's early career experience be trivial thus meeting exclusion restriction. Second, I use intensity of private firm experience of all CEOs attending four-year college located within the first two digits of U.S. ZIPCODE. The intensity of private firm experience (*College-PVT-INTENSITY*) is estimated as the mean of the private firm experience of all CEOs with a college degree from within the first two digit U.S. ZIPCODE of CEO's college of the firms post-secondary degree divided by its corresponding standard deviation.[10] I expect that *College-PVT-INTENSITY* to affect *CEO's private*

[9] In a sample of about 6200 CEOs, the largest numbers start their first professional job at the age of 22 (598) followed by age 23 (546), thus I believe 22-23 is the most likely age for the four-year college students be in the job market. Similarly, of 623,153 BoardEx director profiles, about 24% show a tenure of one to four years in the first job, the highest of these being in two and three years. Also, in a smaller sample of about 6,200 CEOs, two and three years are the most likely tenure in the first job. Therefore, I assume a raw age for being in the second job market is about 25 years for a CEO who finds the first job at the age of 22-23 years. I exclude the years where recession starts in the same year ends within 6 months of the same year (e.g., 1980).

[10] Some CEOs of S&P firms obtained the first post-secondary degree from a college located outside of the United States. In this case for Canadian educated CEOs I use province as the unit of measurement, and all other foreign educated CEOs lump by region. Because there are small number of such CEOs, I do not expect this would materially affect the results. Moreover, I also control for CEO foreign experience, which is expected to largely mitigate any such effects.

experience positively and expect that its effect on idiosyncratic risk through any other channels be trivial.

In panel B of Table 3, I adopt the methodology utilized in Roussanov and Savor (2014) to implement these instrumental variable tests. More specifically, in model (1), Panel B of Table 3, I regress *CEO-PVTEXP* on the *RecessionStart* including all control variables and effects, as expected I find CEO-PVTEXP significantly (*p=0.0315*) positively associated with *RecessionStart*. In model 2,) where $IdVol_{T+1}$ is the dependent variable I use *Pred-PVTEXP* from model (1) as the test variable, retain the same controls and fixed effects, and find that *Pred-PVTEXP* loads with a positive and significant *(p=0.0488)* coefficient suggesting that potential endogeneity issues do not drive the association between idiosyncratic risk and private firm work experience. Next in model (5) I use probit regressions with *Private CEO* indicator variable as dependent variable to predict the likelihood of *RecessionStart* affecting probability of being classified as *Private CEO*, and find a higher than 50% probability of such a possibility (p=0.0589). In corresponding model (6) predicted values of *Private CEO* (*Pred-Private CEO)* from model (5) load with a positive and significant coefficient (p=0.0488) versus $IdVol_{T+1}$ supporting findings in model (2). I repeat this analysis in models (3 & 4) corresponding to models (2 & 3), and models (7&8) corresponding to models (5&6) using *College-PVT-INTENSITY* as instrument. In doing so the results continue to support the lack of the effect of potential

endogeneity issues in driving the relationship between CEO's private firm work experience and $IdVol_{T+1}$. [11]

The key message embedded in these results is that firm idiosyncratic risk increases with *the extent of CEO private experience*. However, one wonders, what is(are) the source(s) of such risk? If the extent of CEO *private experience* influences risk, the source of such risk must be associated with the policy actions of such CEOs that eventually promote risk. Finding these sources empirically becomes more salient in this case, as at least one theoretical prediction about the extent of CEO *private experience* and idiosyncratic risk is somehow contrary to the current research's findings. In this context, there could be three possibilities: a) *Private CEOs* deliberately take higher investment risk by investing in long-term risky activities, b) *Private CEOs* keep cost-cutting (overhead reduction) near to their heart to the extent that they fail to adopt programs that could help mitigate such risk or c) both 'a' and 'b'. I attempt to identify such sources in the next section.[12]

4. CORPORATE INVESTMENT POLICY AND CEO PRIVATE-FIRM EXPERIENCE

4.1 Basic Evidence

[11] Because Roussanov and Savor (2014) by using OLS regression to implement instrumental variable test, I am not able to directly estimate over, under or weak identification tests. In using joint 2SLS tests, however, I note that because of the use of single instrument over identification does not surface as an issue, however, for the sets models (1&2, 5&6, 7&8) using Kleibergen-Paap LM Statistics, the null hypothesis for under identification is rejected at better than 5% level, and for models (3&4) it is rejected at better than 10% level.

[12] In tests untabulated for sake of brevity, I also repeat the main analysis by restricting the sample to nonfinancial and nonutility firms (Table B.3) and by using total risk instead of idiosyncratic risk (Table B.2). A strong positive association between idiosyncratic risk (total risk) and private firm experience persists.

First, does the extent of CEO *private experience* shape the firm's policies for investments in tangible and intangible assets? To examine this question, in Table 4, I regress several types of annual investment expenditures on the extent of CEO *private experience*. In model (1), firm total investment (measured as capital investment + R&D expenses + advertising expenses scaled by total assets) demonstrates a statistically insignificant negative association with *CEO-PVTEXP (p=0.3119)*. This suggests that *Private CEOs* strategically do not take additional investment risk compared with *Nonprivate CEOs*. Moreover, model (2) presents strong evidence that the extent of CEO *private experience* is negatively associated with more risky intangible investments, i.e., R&D and advertising *(p=0.0033)*, suggesting a lack of intangible investment risk-taking by *Private CEOs*. These results are consistent with the interpretation that conditioned by private firms' risk-avoidance strategies, *Private CEOs* shun investments in intangibles.

[Insert Table 4 here]

Similarly, in model (3), the extent of CEO *private experience* negatively loads with an SG&A expenses-based proxy of organizational capital (*OrgCap*). However, it is not statistically significant *(p=0.1862)*. Prior literature analytically shows that organizational capital is firm-specific; however, it embodies the nondiversifiable risk component of the expected returns (Eisfeldt and Papanikolaou, 2013) and attracts a higher expected return for a firm (Eisfeldt and Papanikolaou, 2013; Mishra, 2014). Therefore, the insignificant negative coefficient of the extent of CEO *private experience* with *OrgCap* points to the lack of significant risk-taking strategies by *Private CEOs*. In model (4), the R&D expense-based proxy of knowledge capital (*KnowCap*) loads with a negative and significant coefficient

(p=0.0210), further confirming the lack of investment in intangibles by *Private CEOs*. The results in models 2, 3 and 4, therefore, suggest that managers with significant private-firm experience spend less on building intangible capital, in particular, knowledge capital; thus, they avoid taking investment risk. These results imply *that Private CEOs* may learn from private firms' tendencies to avoid spending on investments with large uncertainties (e.g., R&D and *KnowCap* or the development of reputation by advertising/publicity). In private firms, there could be a focus on cost-cutting, which may shape beliefs and values toward the corporate spending and investments of its employees (thus, *Private CEOs*). Overall, these findings rule out aggressive investment risk-taking by *Private CEOs* as a channel for higher idiosyncratic risk.[13]

Further, the empirical literature finds that idiosyncratic risk is one of the important determinants of firms' future investments (see, e.g., Panousi and Papanikolaou, 2012; Roussanov and Savor, 2014). This is the very reason a factor that affects idiosyncratic risk is important for consideration in the firm's policy decisions. Therefore, I control for idiosyncratic risk in Table 4 and unreported tests.[14]

[13] I argued earlier that the proxy of the extent of the CEO's private experience might be more sensitive to errors in recording CEO CVs in BoardEx. Therefore, I repeat these tests by replacing *CEO-PVTEXP* with the *Private CEO* dummy. The results continue to suggest that firms featuring *Private CEOs* have a significantly lower investment in R&D-ADV and knowledge capital, while such firms do not have significantly lower organizational capital and tangible investments. These results support the lack of expected positive effect of *Private CEO*s on risk via future investments in tangible and intangible assets.

[14] Perhaps the presence of a significant level of idiosyncratic risk in the firm makes it difficult to secure support and financing for future investments. These results are consistent with those of Roussanov and Savor (2014), which emphasize the importance of CEO characteristics, namely, marital status, that have a potential effect on firm idiosyncratic risk.

Next, do *Private CEO*s' values, conditioned by the conservative culture of private firms, lead them to cut other more specific types of overhead? One such overhead expense could be investment for risk management strategies, such as investment to mitigate political risk and investment in corporate social responsibility (CSR) to mitigate reputational risk. While such overheads are not directly measurable in dollars based on publicly reported financial information, as most of these would be lumped with other items such as SG&A expenses, they could be reflected in the observable outcomes (the extent of CSR and degree of political risk, to name a few).

[Insert Table 5 here]

4.2 CEO Private-Firm Experience, Corporate Social Responsibility and Idiosyncratic Risk

Do *Private CEO*s manage firm social reputational risk poorly by shunning optimal investment in improving (stopping deterioration in) CSR performance? In Table 5, I test whether firm CSR performance is associated with the extent of CEO *private experience* by using a popular proxy of CSR performance based on KLD-CSR ratings. In model (1), overall firm CSR performance is negatively associated with *CEO-PVTEXP (p=0.0011)*, supporting the expectation that *Private CEOs* invest less in improving firm CSR performance. Among the six components (Product, Employee Relations, Human Rights, Environment, Diversity and Community) of firm CSR performance, CSR performance in Employee Relations (*EMP_Net*, model (2), *(p=0.0634)*), Diversity (*DIV_Net*, model (3), *(p=0.0742)*), Community (*COM_Net*, model (4), *(p=0.0002)*) and Environmental (*ENV_Net*, model (5), *(p=0.0350)*) are significantly negatively associated with *CEO-PVTEXP*; the effect is strongest for Community CSR performance followed by

Environmental CSR performance. These findings support the conclusion in the previous section that CEOs with higher private-firm experience are conditioned to reduce discretionary spending (or overhead), consequently shrinking investment in improving firm CSR performance. This finding is important for explaining the core findings of this research, as the literature suggests that better CSR performance helps reduce reputational risk and potentially reduces idiosyncratic risk through this channel. Therefore, I argue that the extent of CEO *private experience* likely increases idiosyncratic risk by negatively affecting firm CSR performance. In other words, *Private CEOs* may ignore important investments in reputational risk management and sustainability by suboptimally investing to prevent deterioration in firm CSR performance, which may increase firm idiosyncratic risk. Below, I assess this possibility more directly.

Does the extent of CEO *private experience* positively affect idiosyncratic risk through the channel of the lack of CSR performance? The existing literature provides significant evidence on the effect of CSR on firm risk and performance. For example, theoretically, Henkel *et al.* (2001) suggest that "by shunning investment in socially irresponsible firms, green funds reduce liquidity and demand for such firms' stocks". Accordingly, the evidence suggests a lower cost of equity capital (El Ghoul *et al.*, 2011), lower stock price crash risk (Kim, Li, and Li, 2014), lower idiosyncratic risk (Luo and Bhattacharya, 2009), and better access to financing (Cheng, Ioannou, and Serafeim, 2014) for socially responsible firms. However, to further confirm whether this is the case, I directly test whether the extent of CEO *private experience* affects idiosyncratic risk via the channel of CSR performance and present the results in Table 6. For interpretational

convenience, I first convert the measure of (positive) CSR performance to the lack of CSR performance by subtracting *CSR_net, DIV_Net, EMP_Net, COM_Net,* and *ENV_Net* from 0, which is denoted as *NCSR_Net, NDIV_Net, NEMP_Net, NCOM_Net,* and *NENV_Net*. A positive value of *CSR_Net* (and other components) represents CSR strengths in excess of CSR concerns, and such firms are construed as *socially **RESPONSIBLE** firms*. A positive value for *NCSR_Net*, however, suggests the firm's CSR Concerns exceed CSR Strengths; thus, such firms are inferred to be *socially **IRRESPONSIBLE** firms*. In other words, for *NCSR_Net,* positive (negative) value refers to socially irresponsible/poor CSR (responsible/strong CSR) firms. From the analysis in Table 5, I predict a positive loading for *NCSR_Net* and its components vs. *CEO-PVTEXP,* which is exactly what the results in models (1), (4), (7), (10) and (13) of Table 6 suggest.

[Insert Table 6 here]

To test the prediction that the extent of CEO *private experience* positively affects idiosyncratic risk because *Private CEOs* shun investment in valuable CSR improvement activities, I use two-step regressions. First, I utilize the coefficient estimates from models (1), (4), (7), (10) and (13) to generate model-predicted values for *NCSR_Net* and its three components for time T, i.e., *Pred_NCSR_Net, Pred_NEMP_Net, Pred_NDIV_Net, Pred_NCOM_Net* and *Pred_NENV_Net,* respectively. In models (2), (5), (8), (11) and (14), I regress firm idiosyncratic risk for T+1 on *Pred_NCSR_Net, Pred_NEMP_Net, Pred_NDIV_Net, Pred_NCOM_Net* and *Pred_NENV_Net* respectively by restricting the sample to those firm-years that have nonmissing values for *NCSR_Net*. All these

regressions show a positive association of idiosyncratic risk with the proxies of predicted poor CSR performance (*with p=0.0508),* supporting the expectation that the extent of CEO *private experience* affects idiosyncratic risk by shrinking investment in improving firms' CSR standing. This is a plausible explanation that suggests formidable policy implications for the extent of CEO *private experience*. Further, in models (3), (6), (9), (12) and (15), I use the full sample of firm-years for which a value for *Pred_NCSR_Net, Pred_NEMP_Net, Pred_NDIV_Net, Pred_NCOM_Net* and *Pred_NENV_Net* exists (even though these firm-years may have a missing value for original *NCSR_Net*) to test these predictions. I find strong support for the conclusion (with *p=0.0051)* that the extent of CEO *private experience* elevates the idiosyncratic risk by shrinking investments that may otherwise help in improving firm CSR performance.

4.3 CEO Private-Firm Experience, Political Risk and Idiosyncratic Risk

Subsection 4.2 presents *Private CEOs'* poor management of reputational risk as one of the channels for elevated idiosyncratic risk. However, it is possible that poor management of other types of firm-specific risks also elevates idiosyncratic risk. For example, Hassen *et al.* (2019) generate a measure of firm-level political risk based on textual analysis of earnings conference calls and show that this measure is positively associated with return volatility and negatively associated with firms' investments, proposed capital spending and growth in hiring. According to Hassen *et al.* (2019), the finding that political risk is associated with return volatility is consistent with theoretical predictions that risk increases stock return volatility and decreases investment and growth (Pindyck, 1988;

Bloom *et al.*, 2007). This strand of research, including Hassen *et al.* (2019) and Bombardini (2008), also argues that lobbying to manage political risk or gain political favors is more concentrated among larger firms as opposed to smaller firms, suggesting that private firms, being smaller by nature, would have a lesser tendency to lobby to manage political risk. Therefore, I argue that CEOs' private-firm experience may disadvantage them in the skills needed for favorable lobbying to manage political risk; accordingly, publicly traded firms managed by *Private CEOs* likely experience higher political risk. The higher political risk in turn would affect idiosyncratic risk positively, implying the lack of political risk management skills of *Private CEOs* as another plausible channel for elevated idiosyncratic risk.

I test this conjecture by relying on the political risk measures of Hassen *et al.* (2019), who generate time-varying measures of firm-level political risk by performing "*textual analysis of quarterly earnings conference-call transcripts*". Such conference calls are interactive and targeted at analysts and other interested parties (such as Media), by which a firm's management gives an overview of current and expected performance and responds to potential questions. Hassen *et al.* (2019)'s measure of political risk for "*a given firm at a given point in time*" represents "*the share of conversations on conference calls that centers on risks associated with politics in general and with specific political topics*" (see p. 2136). Because the current analysis is centered on CEO attributes estimated on an annual basis, I take the mean of the quarterly political risk values as the annual value for political risk. For interpretational convenience, I standardize the risk indices by dividing firm-year raw value of political risk by its sample annual standard deviation of firm-level political risk.

Table 7 presents the results of this analysis. In Panel A, I start by regressing overall *RISK* (share of conversations on conference calls centered on risk, in general) on the main proxy of the extent of private-firm experience, i.e., CEO-PVTEXP (Model 1) and Private CEO indicator variable (Model 2). As expected, the overall *RISK* is significantly positively associated with CEOs' private-firm experience ($p<0.05$). Then, in models (3) and (4), I test the effect of the *CEO-PVTEXP* and *Private-CEO* indicator variables, respectively, on the proxy for political risk (*PolRisk*). Political risk is significantly ($p<0.01$) positively associated with CEOs' private-firm experience, supporting the idea that *Private CEOs* do a poor job managing political risk.[15] This evidence strongly supports the conjecture that conditioned by private-firm experience, which likely features frugality, lack of political lobbying skills and lack a culture of spending in policy risk management endeavors, *Private CEOs* do a poor job in managing political risk.

Further, while past theoretical and empirical predictions point out that political risk is associated with higher return volatility, I also test whether political risk is indeed associated with idiosyncratic risk and whether it is an effective channel through which CEOs' private-firm experience likely affects such risk. As expected in Panel B, models (1) and (2) both the extent of overall *RISK* and the extent of *PolRisk* are significantly positively ($p<0.05$) associated with the next year's idiosyncratic risk. Moreover, in models (3) and (4), I use the predicted value of *RISK* (*Pred_RISK*) from Panel A model (1) and that of

[15] The overall risk could be interpreted as an outcome of the lack of all sorts of risk management, including reputational risk management due to lack of investment in social responsibility and political risk management due to lack of investment in lobbying, among other things. Reputational Risk, however, may not be fully orthogonal to political risk. As I argue, corporate social responsibility is one keyway of managing it, and corporate social responsibility in itself often becomes a political issue.

PolRisk from Panel A model (3) (*Pred_PolRisk*) as the test variable. These test variables effectively help isolate that portion of risk that is only correlated with CEO private-firm experience and the set of common controls. In these models, *Pred_RISK* and *Pred_PolRisk* continue to load with a positive and significant coefficient, further supporting the predictions that unmanaged political risk is one of the credible channels through which CEO private-firm experience likely elevates idiosyncratic risk.

5. CONCLUSIONS

The conditions are favorable at private firms for adopting policies to cut costs, avoid discretionary expenses, cut investment in intangibles, overlook reputational risk management, and forgo political lobbying. An employee's prolonged work experience in a job likely shapes her/his behavior in subsequent jobs; therefore, I postulate that *Private CEOs* (who have accumulated significant employment experience in private firms) are likely to be conditioned by such policies of private firms with two potential outcomes: i) such CEOs likely avoid investment risk taking suggesting lower idiosyncratic risk at the firms managed by private CEOs; ii) such CEOs likely overlook investment in valuable intangibles such as CSR and political risk management, suggesting higher idiosyncratic risk in such firms. Therefore, I argue that the effect of the extent of CEO *private experience* on idiosyncratic risk is an empirical question with an unpredictable direction of the effect *a priori*.

I create a proxy of the extent of CEO *private experience* by accounting for the lifetime work experience of CEOs from 1945 as recorded in BoardEx CVs for a sample of firms represented in the ExecuComp database. Contrary to the first prediction, I find that the extent of CEO *private experience* is positively associated with idiosyncratic risk. This evidence holds after controlling for firm-specific heterogeneity, heterogeneity in known CEO characteristics, year, industry, CEO, and firm effects. In an attempt to identify the source of this finding, I investigate common channels that are *a priori* expected to increase idiosyncratic risk. The evidence shows that firms managed by *Private CEOs* lack investment risk-taking, while it is inconsistent with the positive effect of CEOs' private-firm experience on idiosyncratic risk. However, I find strong evidence that the extent of CEO *private experience* i) is associated with poor CSR performance, and further, that poor CSR performance positively affects idiosyncratic risk; and ii) is associated with higher political risk, and political risk positively affects idiosyncratic risk. This latter evidence explains the positive association between CEOs' private-firm experience and idiosyncratic risk. Therefore, I conclude that conditioned by the frugality, lack of political risk management and lack of valuable lobbying skills inherited by working at private firms, *Private CEOs* let idiosyncratic risk go unmanaged by overlooking valuable investments in firms' CSR performance and political risk management.

This study contributes to the literature, first, by considering another important attribute of corporate CEOs that may have a meaningful effect on firms' policies relating to reputational and political risk management, and second, by showing that corporate social responsibility performance and political risk have important implications for firms'

risk management, and consistent with prior literature, these factors significantly affect idiosyncratic risk. The implication of these findings is that executive recruitment consultants and boards may consider the experience of CEOs in private firms and monitor their performance in enhancing intangibles by managing reputational and political risk.

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Appendix A: *Variable Definitions and Data Sources*

Variable	Definition	Source
ToVOL	Total volatility estimated as the standard deviation of weekly returns using 52-week window with minimum of 26 nonmissing values for returns.	CRSP/WRDS
IdVol	Idiosyncratic volatility estimated as standard deviation of residuals from market model on a 52-week window of weekly stock and CRSP value weighted market returns with minimum of 26 nonmissing values for weekly returns. The proxy of idiosyncratic risk.	The same as above
Investment	[Total capital expenditure excluding acquisitions (CAPX) + Total Acquisitions (ACQ) + R&D Expenses (XRD) + Advertising Expenses (XAD)] divided by total assets (AT).	Estimated/Compustat
RD-ADV	[R&D Expenses (XRD) + Advertising Expenses (XAD)] divided by Total Assets (AT).	Estimated/Compustat
OrgCap	Organizational capital estimated by capitalizing 30% SG&A expenses (XSGA) using a depreciation rate of 20%. $OrgCap_{it}$ = (1- %depreciation) $OrgCap_{i, t-1}$ + .30 $SG\&A_{it}$	Peters and Tylor (2016)/WRDS
KnowCap	Knowledge capital estimated by capitalizing R&D expenses (XRD) using a depreciation rate based on Li and Hall (2016) for research intensive industries and 15% for all other industries, $KnowCap_{i\,t}$= (1- %depreciation) $KnowCap_{i, t-1}$ + $R\&D_{it}$.	Peters and Tylor (2016)/WRDS
CSR_Net	A proxy of net performance of investment in CSR based on CSR scores of six key components of KLD-CSR database: Net performance of CSR investment in Community (COM_Net) + Diversity (DIV_Net) + Employee (EMP_Net) + Environment (ENV_Net) + Human Rights (HUM_Net) + Product (PRO_Net). Where, _Net = number of strengths less number of concerns within each category.	Estimated/KLD CSR
CEO-PVTEXP	Number of months of private company experience accumulated over the lifetime until year T-1 divided by total month of lifetime experience accumulated until year T-1.	Estimated/BoardEx CVs
LogAssets	The natural log of total assets (AT - $ million) for the fiscal year ending prior to the cost of equity estimation year.	Estimated/Compustat
Q	Tobin's Q estimated as [Market Value of Equity (csho x prcc_f) + Total Assets (AT)-Common Equity (CEQ)] ÷Total Assets (AT)	The same as above
LEVERAGE	Book leverage estimated as [Total Long-term Debt (DLTT) + Debt in Current Liabilities (DLC)] ÷ Total Assets (AT).	The same as above
ROA	Operating income before depreciation (OIBDP) ÷ Total Assets (AT)	The same as above
FirmAge	Number of years since a firm is represented in Center for Research in Securities Prices (CRSP) database.	Estimated/CRSP
CEO Age	Present age of the CEO	ExecuCom
CEO Tenure	Years worked at firm i.e., tenure at firm	The same as above
CEO Chair	CEO, who is also the chair of the board	The same as above
CEO Wealth	Natural log of CEO's total wealth based on estimated value of shares owned exclusive of options and option holdings.	Author's estimation/ExecuCom
CEO-FOREXP	% of months CEO worked in a country outside of the United States	Estimated/BoardEx
Herfindahl	Hirschman-Herfindahl index of industry market share concentration	Estimated/Compustat
MBAPHD	Proxy of CEO higher education, 1 if CEO holds either an MBA or a Ph.D. degree	BoardEx

InstOwners	Number of institutional owners holding 5% or more of outstanding shares of the firm.	Thompson Reuters/WRDs
RISK	Firm-year mean of 'the share of conversations related to risks in general contained in quarterly earnings conference call transcripts' standardized by sample-year standard deviation of the index - as per Hassen *et al.* (2019).	www.firmlevelrisk.com
PolRISK	Firm-year mean of 'the share of conversations related to risks associated with politics contained in quarterly earnings conference call transcripts' standardized by sample-year standard deviation of the index - as per Hassen *et al.* (2019).	www.firmlevelrisk.com
NonpolRISK	Firm-year mean of 'the share of conversations related to risks other than political risk contained in quarterly earnings conference call transcripts' standardized by sample-year standard deviation of the index - as per Hassen *et al.* (2019).	www.firmlevelrisk.com

Table 1: Sample description

Year	*CEO-PVTEXP*	N
1993	42.5%	852
1994	42.9%	1137
1995	41.4%	1195
1996	41.3%	1269
1997	40.2%	1317
1998	39.2%	1379
1999	38.4%	1462
2000	38.1%	1473
2001	30.0%	1379
2002	37.5%	1375
2003	37.7%	1436
2004	37.8%	1430
2005	38.3%	1426
2006	38.0%	1471
2007	39.8%	1747
2008	39.6%	1712
2009	40.1%	1673
2010	39.8%	1648
2011	39.9%	1642
2012	40.4%	1600
2013	40.6%	1585
2014	40.6%	1568
2015	40.9%	1516
2016	40.7%	1342
All	39.65%	34634

Presents annual distribution of sample firms represented in ExecuCom database for which a proxy for the extent of the CEO's private experience can be created using BoardEx database from 1993 to 2016. *CEO-PVTEXP* is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Detailed variable definitions are reported in Appendix A.

Table 2: CEO Private Firm Experience and Idiosyncratic Risk

	(1)	(2)	(3)	(4)
VARIABLES	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$
CEO-PVTEXP	*0.1268***	*0.5642****		
	(0.0117)	*(0.0000)*		
Private CEO			*0.0590***	*0.3197****
			(0.0448)	*(0.0000)*
Leverage	0.8304***		0.8304***	
	(0.0000)		(0.0000)	
LogAssets	-0.2327***		-0.2332***	
	(0.0000)		(0.0000)	
ROA	-3.9836***		-3.9844***	
	(0.0000)		(0.0000)	
Q	0.1079***		0.1077***	
	(0.0000)		(0.0000)	
FirmAge	-0.0074***		-0.0074***	
	(0.0000)		(0.0000)	

CEO Age	-0.0124***	-0.0419***	-0.0123***	-0.0417***
	(0.0001)	(0.0000)	(0.0001)	(0.0000)
CEO Tenure	0.0035	0.0276***	0.0032	0.0271***
	(0.1011)	(0.0000)	(0.1232)	(0.0000)
CEO Chair	0.0323	-0.1966***	0.0314	-0.2013***
	(0.2613)	(0.0005)	(0.2743)	(0.0004)
CEO Wealth	-0.0550***	-0.2078***	-0.0551***	-0.2088***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
CEO-FOREXP	0.1287	0.3269	0.1333	0.3396
	(0.4669)	(0.2901)	(0.4544)	(0.2751)
Herfindhal	-0.1988		-0.2007	
	(0.5156)		(0.5126)	
MBAPHD	-0.0024	-0.0666	-0.0048	-0.0780
	(0.9280)	(0.2291)	(0.8569)	(0.1596)
Instown	-0.0211*	-0.0162	-0.0212*	-0.0170
	(0.0540)	(0.3474)	(0.0528)	(0.3253)
IdVol $_{T}$	0.4676***		0.4678***	
	(0.0000)		(0.0000)	
Constant	5.3879***	8.2254***	5.4170***	8.3217***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	30,033	31,450	30,033	31,450
Adj R2	0.543	0.306	0.542	0.305
Year Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes

Presents the main test of the effect of CEO-PVTEXP on idiosyncratic risk for the sample of firms represented in ExecuCom database for which a proxy for CEO-PVTEXP can be created using BoardEx database from 1993 to 2016. CEO-PVTEXP is % lifetime employment experience of a CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Subscripts represent number of years prior (negative) and after (positive) to observing CEO-PVTEXP Index. Detailed variable definitions are reported in Appendix A. P-values based on cluster-robust standard errors are in brackets; ***, **, * identify p<0.01, p<0.05 & p<0.10 respectively.

Table 3 Endogeneity Issues CEO Private Firm Experience and **Idiosyncratic Risk**
Panel A – Observed and Unobserved CEO & Firm Effects

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$
CEO-PVTEXP	0.1526**		1.3521**	0.1725*		1.2516**
	(0.0132)		(0.0157)	(0.0601)		(0.0265)
Private CEO		0.0711**			0.0965**	
		(0.0399)			(0.0431)	
Holder67	-0.2330***	-0.2354***				
	(0.0000)	(0.0000)				
General Skills	-0.0608	-0.0584				
	(0.1222)	(0.1329)				
Managerial Ability	-0.0106	-0.0124				
	(0.8395)	(0.8120)				
CP Divorce Laws	0.0784**	0.0791**				
	(0.0364)	(0.0349)				
Controls & Intercept	**Yes**	**Yes**	**Yes- No MBAPHD**	**Yes**	**Yes**	**Yes-No MBAPHD**
Observations	24,238	24,238	30,033	30,033	30,033	30,033
Adj R2	0.523	0.523	0.607	0.354	0.354	0.305
Year Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm-CEO-Ind Effects	Industry	Industry	CEO	Firm	Firm	Firm-CEO

Panel B: Instruments

VARIABLES	(1) CEO-PVTEXP	(2) IdVol $_{T+1}$	(3) CEO-PVTEXP	(4) IdVol $_{T+1}$	(5) *Private CEO*	(6) IdVol $_{T+1}$	(7) *Private CEO*	(8) IdVol $_{T+1}$
RecessionStart	0.0212**				0.0785*			
	(0.0315)				(0.0589)			
College-PVT-INTENSITY			0.0469**				0.7902***	
			(0.0355)				(0.0000)	
Pred-PVTEXP		2.6544**		0.6404*				
		(0.0488)		(0.0582)				
Pred *Private CEO*						0.7166**		0.0380*
						(0.0488)		(0.0582)
Controls & Intercept	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Observations	30,081	30,033	30,068	30,020	30,081	30,033	30,068	30,020
Adjusted R-squared	0.098	0.542	0.103	0.542		0.542		0.542
Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Specification	OLS	OLS	OLS	OLS	PROBIT	OLS	PROBIT	OLS

Presents the robustness tests for CEO-PVTEXP on idiosyncratic risk using a sample of firms represented in ExecuCom database for which a proxy for CEO-PVTEXP can be created using BoardEx database from 1993 to 2016. Panel A accounts for unobservable CEO & firm-fixed effects and controls for additional observable CEO characteristics representing CEO overconfidence (Holder67), General Skills, Managerial Ability, and Community Propensity Divorce Laws representing elevated likelihood remaining unmarried. Panel B utilizes two instruments - RecessionStart is 1 if the CEO is either 22-year-old or 25-year-old at the start of recession (peak) of the NBER business cycle year & College-PVT-INTENSITY represents mean divided by standard deviation of private experience of all CEOs graduating with their first post-secondary degree from a college located within the first two digit U.S. Zipcode of the CEO's college. The first stage predicts value of CEO-PVTEXP (Models 1 & 3) and Private CEO (Models 5& 7), which are used respectively in (Models 2 & 4, Pred- PVTEXP) and (Models 6 & 9, Pred-Private CEO). CEO-PVTEXP is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs, the beginning date from which we have tracked these data is 1945 and Private CEO is CEO-Year representing higher than average private firm experience. Subscripts represent the number of years prior (negative) and after (positive) to observing CEO-PVTEXP Index. Detailed variable definitions are reported in Appendix A. P-values based on cluster-robust standard errors are in brackets; ***, **, * identify p<0.01, p<0.05 & p<0.10 respectively.

Table 4: CEO's Private Firm Experience and **Corporate Investments**

VARIABLES	(1) Investment $_{T+1}$	(2) R&D-ADV $_{T+1}$	(3) OrgCap $_{T+1}$	(4) KnowCap $_{T+1}$
CEO-PVTEXP	-0.2400	-0.2778***	-0.1935	-0.2750**
	(0.3119)	(0.0033)	(0.1862)	(0.0210)
Dependent $_{T}$	0.3677***	0.7347***	0.9168***	8.9434***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Controls & Intercept	**Yes**	**Yes**	**Yes**	**Yes**
Observations	26,035	29,236	28,045	28,045
Adj R2	0.386	0.737	0.916	0.911
Year Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes

Presents the association of CEO-PVTEXP with total corporate investments in tangible and intangible assets for the sample of firms represented in ExecuCom database for which a proxy for CEO-PVTEXP can be created using BoardEx database from 1993 to 2016. CEO-PVTEXP is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Subscripts represent the number of years prior (negative) and after (positive) to observing CEO-PVTEXP Index. Detailed variable definitions are reported in Appendix A. P-values based on cluster-robust standard errors are in brackets; ***, **, * identify p<0.01, p<0.05 & p<0.10 respectively.

Table 5: CEO Private Firm Experience & Corporate Social Responsibility

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
VARIABLES	CSR_Net $_{T+1}$	EMP_Net $_{T+1}$	DIV_Net $_{T+1}$	COM_Net $_{T+1}$	ENV_Net $_{T+1}$	PRO_Net $_{T+1}$	HUM_Net $_{T+1}$
CEO-PVTEXP	*-0.4159****	*-0.0830**	*-0.1145**	*-0.1125****	*-0.0894***	*-0.0115*	*-0.0050*
	(0.0011)	*(0.0634)*	*(0.0742)*	*(0.0002)*	*(0.0350)*	*(0.6915)*	*(0.7003)*
Leverage	-0.5880**	-0.2434***	-0.2979**	-0.1067*	-0.0103	0.0409	0.0294
	(0.0357)	(0.0041)	(0.0347)	(0.0751)	(0.8788)	(0.5381)	(0.2466)
LogAssets	0.5967***	0.1149***	0.4586***	0.1128***	0.0603***	-0.1301***	-0.0197***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.0000)	(0.0000)
ROA	2.0117***	0.9712***	0.4298**	0.1692**	0.4690***	-0.0557	0.0281
	(0.0000)	(0.0000)	(0.0361)	(0.0495)	(0.0001)	(0.6159)	(0.4193)
Q	0.1873***	0.0491***	0.0817***	0.0278***	0.0138**	0.0124	0.0026
	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.0439)	(0.1153)	(0.2798)
FirmAge	0.0003	-0.0013	0.0054***	0.0001	-0.0017	-0.0009	-0.0014***
	(0.9409)	(0.2641)	(0.0001)	(0.9241)	(0.1586)	(0.3041)	(0.0002)
CEO Age	-0.0139**	0.0006	-0.0085***	-0.0026**	-0.0034**	0.0003	-0.0004
	(0.0182)	(0.7766)	(0.0079)	(0.0338)	(0.0441)	(0.8339)	(0.4151)
CEO Tenure	-0.0022	-0.0015	-0.0081**	0.0006	0.0036**	0.0034**	-0.0002
	(0.6999)	(0.4338)	(0.0170)	(0.6521)	(0.0330)	(0.0211)	(0.7519)
CEO Chair	-0.0942	-0.1177***	0.1121***	-0.0193	-0.0450*	-0.0298	0.0055
	(0.2365)	(0.0001)	(0.0035)	(0.3007)	(0.0779)	(0.1279)	(0.4991)
CEO Wealth	-0.0141	-0.0060	-0.0038	-0.0003	0.0001	-0.0023	-0.0019
	(0.4609)	(0.3895)	(0.6798)	(0.9538)	(0.9819)	(0.6673)	(0.2481)
CEO-FOREXP	0.2299	-0.0399	0.0988	0.0056	0.0850	0.0580	0.0225
	(0.5004)	(0.6837)	(0.5556)	(0.9339)	(0.3933)	(0.3586)	(0.2460)
Herfindhal	-1.8923**	-0.7943**	-0.9652**	0.0224	-0.0458	-0.1121	0.0027
	(0.0285)	(0.0107)	(0.0495)	(0.8947)	(0.8455)	(0.6356)	(0.9803)
MBAPHD	0.0463	0.0110	0.0132	0.0081	0.0345	-0.0272	0.0069
	(0.5817)	(0.7341)	(0.7379)	(0.7084)	(0.2005)	(0.2059)	(0.3649)
Instown	0.0018	-0.0023	0.0121	0.0100**	-0.0145*	-0.0045	0.0010
	(0.9326)	(0.7819)	(0.2553)	(0.0419)	(0.0596)	(0.4090)	(0.6557)
Constant	-3.7150***	-0.7369***	-3.2103***	-0.3396***	-0.5447***	1.0075***	0.1089**
	(0.0000)	(0.0000)	(0.0000)	(0.0011)	(0.0003)	(0.0000)	(0.0191)
Observations	16,360	16,360	16,360	16,360	16,360	16,360	16,360
Adj R2	0.217	0.181	0.363	0.155	0.177	0.199	0.086
Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Presents the association of CEO-PVTEXP with corporate social responsibility for the sample of firms represented in ExecuCom database for which a proxy for CEO-PVTEXP can be created using BoardEx database from 1993 to 2016. CEO-PVTEXP is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Subscripts represent the number of years prior (negative) and after (positive) to observing CEO-PVTEXP Index. Detailed variable definitions are reported in Appendix A. P-values based on cluster-robust standard errors are in brackets; ***, **, * identify p<0.01, p<0.05 & p<0.10 respectively.

Table 6: CEO's Private Firm Experience, Corporate Social Responsibility and **Idiosyncratic Risk**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
VARIABLES	NCSR_Net $_T$	IdVol $_{T+1}$	IdVol $_{T+1}$	NEMP_Net $_T$	IdVol $_{T+1}$	IdVol $_{T+1}$	NDIV_Net $_T$	IdVol $_{T+1}$	IdVol $_{T+1}$
CEO-PVTEXP	0.4188***			0.0843**			0.1148*		
	(0.0006)			(0.0452)			(0.0599)		
Pred_NCSR_Net		0.3686*	0.5054**						
		(0.0508)	(0.0051)						
Pred_NEMP_Net					1.8311*	2.5108***			
					(0.0508)	(0.0051)			
Pred_NDIV_Net								1.3451*	1.8444***
								(0.0508)	(0.0051)
Controls & Intercept	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Observations	18,474	17,865	30,425	18,474	17,865	30,425	18,474	17,865	30,425
Adj R2	0.206	0.412	0.425	0.176	0.412	0.425	0.346	0.412	0.425
Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample	CSR Only	CSR Only	Full	CSR Only	CSR Only	Full	CSR Only	CSR Only	Full

	(10)	(11)	(12)	(13)	(14)	(15)
VARIABLES	NCOM_Net $_T$	IdVol $_{T+1}$	IdVol $_{T+1}$	NENV_Net $_T$	IdVol $_{T+1}$	IdVol $_{T+1}$
CEO-PVTEXP	0.1106***			0.0830**		
	(0.0001)			(0.0375)		
Pred_NCOM_Net		1.3963*	1.9146***			
		(0.0508)	(0.0051)			
Pred_NENV_Net					1.8594*	2.5497***
					(0.0508)	(0.0051)
Controls & Intercept	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Observations	18,474	17,865	30,425	18,474	17,865	30,425
Adj R2	0.150	0.412	0.425	0.168	0.412	0.425
Year Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes	Yes	Yes
Sample	CSR Only	CSR Only	Full	CSR Only	CSR Only	Full

Presents the effect of *CEO-PVTEXP* on idiosyncratic risk through the channels of CSR for the sample of firms represented in ExecuCom database for which a proxy for *CEO-PVTEXP* can be created using BoardEx database from 1993 to 2016. NCSR_Net refers to negative CSR_net (-CSR_Net), representing CSR concerns less CSR Strengths such that a higher value of this variable a proxy of corporate social IRRESPONSBILITY. First step estimates corporate social irresponsibility predicted by *CEO-PVTEXP* and all control variables and the second step tests effect of *CEO-PVTEXP* driven negative (or lack of) CSR on idiosyncratic risk. CEO-PVTEXP is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Subscripts represent the number of years prior (negative) and after (positive) to observing *CEO-PVTEXP*. Detailed variable definitions are reported in Appendix A. P-values based on cluster-robust standard errors are in brackets; ***, **, * identify p<0.01, p<0.05 & p<0.10 respectively.

Table 7: CEO's Private Firm Experience, Political Risk & Idiosyncratic Risk

Panel A: CEO's Private Firm Experience & Political Risk

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	RISK	RISK	PolRISK	PolRISK	NonpolRISK	NonpolRISK
CEO-PVTEXP	0.1198**		0.1126***		0.0350	
	(0.0101)		(0.0036)		(0.4275)	
Private CEO		0.0577**		0.0802***		-0.0043
		(0.0348)		(0.0008)		(0.8653)
Controls & Intercept	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Observations	16,788	16,788	16,788	16,788	16,788	16,788
Adj R2	0.226	0.225	0.110	0.110	0.082	0.082
Year Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes	Yes	Yes
Sample	RISK Only (Years 2002+)	RISK Only (Years 2002+)	PolRISK Only (Years 2002+)	PolRISK Only (Years 2002+)	NonpolRISK Only (Years 2002+)	NonpolRISK Only (Years 2002+)

Panel B: Political RISK & Idiosyncratic Risk

	(1)	(2)	(3)	(4)
VARIABLES	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$
RISK	0.0731***			
	(0.0013)			
PolRISK		0.0413**		
		(0.0136)		
Pred_RISK			1.0587**	
			(0.0117)	
Pred_PolRISK				1.1257**
				(0.0117)
Controls & Intercept	**Yes**	**Yes**	**Yes**	**Yes**
Observations	16,772	16,772	30,033	30,033
Adj R2	0.568	0.568	0.543	0.543
Year Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes
Sample	RISK Only (Years 2002+)	PolRISK Only (Years 2002+)	Full	Full

Presents the effect of CEO-PVTEXP on Political RISK (Panel A) and idiosyncratic risk through the channels of Political RISK (Panel B) for the sample of firms represented in ExecuCom database for which a proxy for CEO-PVTEXP can be created using BoardEx database from 1993 to 2016. The firm specific political risk measure is as per Hassen *et al.* (2019) constructed using the textual analysis of quarterly earnings conference calls. The higher occurrences of words signifying political risk in conference calls give higher value to PolRISK variable. PolRISK is political risk and RISK is all sorts of risks. Predicted values of respective risk are generated using the regressions from Panel A. All PolRISK and RISK variables are standardized by dividing by their respective annual standard deviations. CEO-PVTEXP is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Subscripts represent the number of years prior (negative) and after (positive) to observing CEO-PVTEXP. Detailed variable definitions are reported in Appendix A. P-values based on cluster-robust standard errors are in brackets; ***, **, * identify p<0.01, p<0.05 & p<0.10 respectively.

Table B.1 Example for Estimation of *CEO-PVTEXP* - Mark Zuckerberg

IPO Year	Year	Job1 CEO Private	Job2 CEO/Chair Private	Job3 CEO/Chair Public	Total Annual	Private Annual	Quoted Annual	Cumulative Private	Cumulative Quoted	Cumulative Total	*CEO-PVTEXP*
	2004	5			5	5	0	5	0	5	1.000
	2005	12			12	12	0	17	0	17	1.000
	2006	12			12	12	0	29	0	29	1.000
	2007	12			12	12	0	41	0	41	1.000
	2008	12			12	12	0	53	0	53	1.000
	2009	12			12	12	0	65	0	65	1.000
	2010	12			12	12	0	77	0	77	1.000
	2011	12			12	12	0	89	0	89	1.000
2012 May 18	2012	1	4	7	12	5	7	94	7	101	0.931
	2013	0	0	12	12	0	12	94	19	113	0.832
	2014	0	0	12	12	0	12	94	31	125	0.752
	2015	0	0	12	12	0	12	94	43	137	0.686

Table B.1 Continued: Extract– Mark Zuckerberg's employment experience from BoardEx CV Database

COMPANYNAME	DIRECTORNAME	ORGTYPE	DATESTARTROLE	DATEENDROLE	ROLENAME
FACEBOOK INC	Mark Zuckerberg	Quoted	2012-05-18	.C	Chairman/CEO
Facebook Inc. (Listed 05/2012)	Mark Zuckerberg	Private	2012-01-01	2012-05-18	Chairman/CEO
Facebook Inc. (Listed 05/2012)	Mark Zuckerberg	Private	2004-07-29	2012-01-01	CEO

Presents an example on how CEO-PVTEXP is estimated. Removed BoardEx employment file entries with missing start date and country. Purged duplicate entries with same start and end dates for the same director id, company id, role type, organization types, one entry with start year> end year. Limitation: if employment file has multiple running positions for the same director during the same month each position is counted as a full-time position. Limited number of director-years show employment experience at the same firm in excess of 50 years (specially for founder directors), which is capped at 55 years for calculation of *CEO-PVTEXP*. For the convenience of avoiding double counting for the employments that end and start during the middle of the month, I assume all jobs start and end at the end of month. For example, I assume Mark Zuckerberg's first job at Facebook (pre-IPO starts at the end of July 2004, hence, 5 months in 2004 and ends at the end of January 2012, hence, 1 month for 2012. The second job at Facebook(pre-IPO) starts at the end of January and ends at the end of May, hence, 4 months. The third job at Facebook (post-IPO) to start at the end of May hence 7 months for 2012. Total 12 months worked in 2012, of which 5 classified as private experiences and 7 as nonprivate experiences. While for frequent changes in jobs, and cases with gaps between jobs, this may cause small under or over counting but generally, it adds up finely. Some entries where the start year was equal to the end year and the start month> the end month, were assumed to continue from the past and entered end month= months worked in that year.

Table B.2: CEO Private Firm Experience and Total Risk

	(1)	(2)	(3)	(4)
VARIABLES	ToVol $_{T+1}$	ToVol $_{T+1}$	ToVol $_{T+1}$	ToVol $_{T+1}$
CEO-PVTEXP	0.1250**	0.5495***		
	(0.0133)	(0.0000)		
Private CEO			0.0576*	0.3088***
			(0.0554)	(0.0000)
Leverage	0.7604***		0.7605***	
	(0.0000)		(0.0000)	
LogAssets	-0.1862***		-0.1868***	
	(0.0000)		(0.0000)	
ROA	-4.1246***		-4.1255***	
	(0.0000)		(0.0000)	
Q	0.1578***		0.1576***	
	(0.0000)		(0.0000)	
FirmAge	-0.0074***		-0.0074***	
	(0.0000)		(0.0000)	
CEO Age	-0.0123***	-0.0441***	-0.0122***	-0.0439***
	(0.0001)	(0.0000)	(0.0001)	(0.0000)
CEO Tenure	0.0029	0.0250***	0.0027	0.0245***
	(0.1923)	(0.0000)	(0.2258)	(0.0000)
CEO Chair	0.0396	-0.1679***	0.0388	-0.1726***
	(0.1841)	(0.0060)	(0.1938)	(0.0048)
CEO Wealth	-0.0438***	-0.1772***	-0.0439***	-0.1782***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
CEO-FOREXP	0.1432	0.3772	0.1479	0.3899
	(0.4151)	(0.2397)	(0.4032)	(0.2269)
Herfindhal	-0.0946	0.1932	-0.0964	0.1776
	(0.7593)	(0.7820)	(0.7554)	(0.8004)
MBAPHD	0.0154	-0.0207	0.0130	-0.0318
	(0.5832)	(0.7314)	(0.6416)	(0.5985)
Instown	-0.0127	-0.0163	-0.0128	-0.0170
	(0.2445)	(0.3757)	(0.2397)	(0.3544)
ToVol $_{T-1}$	0.5031***		0.5032***	
	(0.0000)		(0.0000)	
Constant	4.7394***	8.3032***	4.7688***	8.3991***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	30,033	31,438	30,033	31,438
Adj R2	0.581	0.344	0.581	0.344
Year Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes

Presents a test of the effect of CEO-PVTEXP on total risk for the sample of firms represented in ExecuCom database for which a proxy for CEO-PVTEXP can be created using BoardEx database from 1993 to 2016. CEO-PVTEXP is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Subscripts represent the number of years prior (negative) and after (positive) to observing CEO-PVTEXP Index. Detailed variable definitions are reported in Appendix A. P-values based on cluster-robust standard errors are in brackets; ***, **, * identify p<0.01, p<0.05 & p<0.10 respectively.

Table B.3: CEO Private Firm Experience and Idiosyncratic Risk (Non-Fin & Non-Utility)

	(1)	(2)	(3)	(4)
VARIABLES	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$	IdVol $_{T+1}$
CEO-PVTEXP	0.1830***	0.7360***		
	(0.0032)	(0.0000)		
Private CEO			0.0901***	0.4240***
			(0.0099)	(0.0000)
Leverage	0.8869***		0.8867***	
	(0.0000)		(0.0000)	
LogAssets	-0.2650***		-0.2656***	
	(0.0000)		(0.0000)	
ROA	-3.9984***		-3.9986***	
	(0.0000)		(0.0000)	
Q	0.0921***		0.0919***	
	(0.0000)		(0.0000)	
FirmAge	-0.0080***		-0.0080***	
	(0.0000)		(0.0000)	
CEO Age	-0.0133***	-0.0448***	-0.0132***	-0.0446***
	(0.0003)	(0.0000)	(0.0003)	(0.0000)
CEO Tenure	0.0042*	0.0333***	0.0039*	0.0326***
	(0.0727)	(0.0000)	(0.0966)	(0.0000)
CEO Chair	0.0340	-0.2238***	0.0333	-0.2274***
	(0.2939)	(0.0007)	(0.3045)	(0.0006)
CEO Wealth	-0.0602***	-0.2353***	-0.0604***	-0.2364***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
CEO-FOREXP	0.1499	0.3283	0.1567	0.3458
	(0.4603)	(0.3472)	(0.4449)	(0.3266)
Herfindhal	-0.2875	-0.4244	-0.2903	-0.4455
	(0.3809)	(0.5342)	(0.3776)	(0.5177)
MBAPHD	-0.0088	-0.0757	-0.0128	-0.0931
	(0.7736)	(0.2349)	(0.6736)	(0.1442)
Instown	-0.0283**	-0.0252	-0.0283**	-0.0257
	(0.0342)	(0.1965)	(0.0339)	(0.1878)
IdVol $_T$	0.4468***		0.4472***	
	(0.0000)		(0.0000)	
Constant	5.9323***	8.8553***	5.9696***	8.9835***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	24,557	25,076	24,557	25,076
Adj R2	0.525	0.279	0.525	0.277
Year Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes

Presents a test of the effect of CEO-PVTEXP on idiosyncratic risk for the sample of nonfinancial and nonutility (i.e., other than SIC 6000-6999 & SIC 4900-4999) firms represented in ExecuCom database for which a proxy for CEO-PVTEXP can be created using BoardEx database from 1993 to 2016. CEO-PVTEXP is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Subscripts represent the number of years prior (negative) and after (positive) to observing CEO-PVTEXP Index. Detailed variable definitions are reported in Appendix A. P-values based on cluster-robust standard errors are in brackets; ***, **, * identify p<0.01, p<0.05 & p<0.10 respectively.

Table B.4: CEO Private Firm Experience and Idiosyncratic Risk (control for IPO & PVT firm CEO)

	(1)	(2)	(3)	(4)
VARIABLES	$IdVol_{T+1}$	$IdVol_{T+1}$	$IdVol_{T+1}$	$IdVol_{T+1}$
CEO-PVTEXP	0.1289**		0.1255**	
	(0.0108)		(0.0126)	
Private CEO		0.0600**		0.0582**
		(0.0425)		(0.0485)
IPO CEO	-0.0256	-0.0198	-0.0828	-0.0830
	(0.6013)	(0.6865)	(0.2963)	(0.2953)
CEO at PrivateFirm			0.0609	0.0671
			(0.3668)	(0.3208)
Leverage	0.8297***	0.8299***	0.8302***	0.8304***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
LogAssets	-0.2325***	-0.2330***	-0.2328***	-0.2334***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
ROA	-3.9831***	-3.9840***	-3.9857***	-3.9869***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Q	0.1080***	0.1078***	0.1079***	0.1077***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
FirmAge	-0.0074***	-0.0075***	-0.0074***	-0.0075***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
CEO Age	-0.0124***	-0.0123***	-0.0125***	-0.0124***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
CEO Tenure	0.0035*	0.0033	0.0036*	0.0034
	(0.0986)	(0.1212)	(0.0858)	(0.1041)
CEO Chair	0.0324	0.0315	0.0328	0.0319
	(0.2595)	(0.2731)	(0.2537)	(0.2661)
CEO Wealth	-0.0550***	-0.0552***	-0.0550***	-0.0551***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
CEO-FOREXP	0.1288	0.1335	0.1301	0.1347
	(0.4664)	(0.4539)	(0.4627)	(0.4503)
Herfindhal	-0.1975	-0.1997	-0.1990	-0.2013
	(0.5185)	(0.5148)	(0.5151)	(0.5112)
MBAPHD	-0.0023	-0.0048	-0.0029	-0.0054
	(0.9302)	(0.8577)	(0.9123)	(0.8402)
Instown	-0.0211*	-0.0212*	-0.0212*	-0.0213*
	(0.0539)	(0.0527)	(0.0532)	(0.0520)
$IdVol_{T}$	0.4677***	0.4679***	0.4675***	0.4677***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Constant	5.3853***	5.4153***	5.3919***	5.4217***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	30,033	30,033	30,033	30,033
Adj R2	0.543	0.542	0.543	0.542
Year Effects	Yes	Yes	Yes	Yes
Industry Effects	Yes	Yes	Yes	Yes

Presents a test of the effect of CEO-PVTEXP on idiosyncratic risk for a sample of U.S. firms represented in ExecuCom database for which a proxy for CEO-PVTEXP can be created using BoardEx database from 1993 to 2016. All variables are estimated as described in Appendix A, except for *IPO CEO* - 1 for a founding CEO pre- & post IPO, and *CEO at PrivateFirm*, 1 for either an *IPO CEO* or past private firm CEO position. CEO-PVTEXP is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Subscripts represent the number of years prior (negative) and after (positive) to observing CEO-PVTEXP Index. P-values based on cluster-robust standard errors are in brackets; ***, **, * identify $p<0.01$, $p<0.05$ & $p<0.10$ respectively.

Table B.5 - Panel A: Statistical Properties of Key Variables

Variable	Mean	STDEV	P.25	Median	P.75	N
ToVOL (%)	5.680	3.380	3.510	4.870	6.890	31437
IdVol (%)	4.920	3.050	2.960	4.210	6.040	31437
CEO-PVTEXP	0.397	0.323	0.082	0.363	0.669	34634
OrgCap	0.200	0.200	0.040	0.150	0.300	35157
KnowCap	0.090	0.190	0.000	0.000	0.120	35157
Investment	0.130	0.110	0.050	0.100	0.170	31293
RD-ADV	0.040	0.080	0.000	0.010	0.050	33973
CSR_Net	0.200	2.550	-1.000	0.000	1.000	19377
EMP_Net	0.040	1.060	0.000	0.000	0.000	19377
DIV_Net	0.200	1.360	-1.000	0.000	1.000	19377
COM_Net	0.140	0.610	0.000	0.000	0.000	19377
PRO_Net	-0.160	0.660	0.000	0.000	0.000	19377
HUM_Net	-0.050	0.280	0.000	0.000	0.000	19377
ENV_Net	0.020	0.860	0.000	0.000	0.000	19377
Leverage	0.230	0.200	0.060	0.210	0.350	35189
LogAssets	7.490	1.720	6.240	7.410	8.640	35189
ROA	0.120	0.120	0.070	0.120	0.180	34252
Q	1.950	1.490	1.140	1.480	2.160	34426
FirmAge	21.200	18.300	8.000	17.000	29.000	35189
CEO Age	55.620	7.440	51.000	56.000	60.000	35124
CEO Tenure	7.607	7.063	3.000	6.000	10.000	35189
CEO-Chair	0.570	0.500	0.000	1.000	1.000	35189
CEO Wealth	8.990	2.480	8.060	9.220	10.370	35188
CEO-FOREXP	0.040	0.126	0.000	0.000	0.000	34634
Herfindahl	0.062	0.062	0.031	0.042	0.072	35165
MBAPHD	0.292	0.464	0.000	0.000	1.000	34634
InstOwners	1.752	1.741	0.000	1.000	3.000	35189

Presents statistical properties of the proxies of dependent and independent variables for the sample firm-years represented in ExecuCom database for which a proxy for *CEO-PVTEXP* can be created using BoardEx database from 1993 to 2016. *CEO-PVTEXP* is % lifetime employment experience of CEO in private (or not quoted) firms as per BoardEx CVs; the beginning date from which we have tracked these data is 1945. Detailed variable definitions are reported in Appendix A.

Table B.5 - Panel B: Correlation Coefficients

Variables	CEO-PVTEXP	Leverage	LogAssets	ROA	Q	FirmAge	CEO Age	CEO Tenure	CEO-Chair	CEO Wealth	CEO-FOREXP	Herfindahl	MBAPHD	InstOwners
Leverage	0.02													
LogAssets	0.00	0.23												
ROA	-0.08	-0.08	-0.02											
Q	-0.04	-0.17	-0.27	0.23										
FirmAge	-0.12	0.08	0.36	0.02	-0.15									
CEO Age	-0.02	0.04	0.14	0.01	-0.12	0.17								
CEO Tenure	-0.08	-0.05	-0.05	0.03	0.02	-0.03	0.38							
CEO Chair	-0.05	0.04	0.17	0.04	-0.04	0.15	0.27	0.25						
CEO Wealth	-0.07	-0.03	0.26	0.16	0.20	0.02	0.14	0.29	0.22					
CEO-FOREXP	0.03	0.00	0.01	-0.02	-0.02	-0.03	-0.03	-0.03	-0.04	-0.03				
Herfindahl	-0.01	0.02	-0.05	0.12	-0.01	-0.06	0.02	0.01	-0.01	0.03	-0.01			
MBAPHD	-0.05	0.00	0.03	0.01	0.02	0.04	-0.03	-0.02	0.00	0.00	0.00	-0.03		
InstOwners	-0.03	-0.06	-0.10	0.02	-0.03	0.00	0.01	0.05	-0.08	-0.02	0.00	0.08	-0.01	
IdVol $_{T-1}$	0.02	-0.01	-0.39	-0.20	0.12	-0.29	-0.16	-0.03	-0.08	-0.14	0.03	0.02	-0.01	-0.03