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No-Fly Zone in the Loan Office: How CEOs' Risky Hobbies Affect Credit Stakeholders' Evaluation of Firms

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ABSTRACT

The extant research has often examined the work-related experiences of corporate executives, but their off-the-job activities could be just as insightful. This study employs a novel proxy for CEOs' risky hobbies—CEOs' hobby of piloting a private aircraft—and investigates its effect on credit stakeholders' evaluation of the firms led by the CEOs as reflected in bank loan contracting. Using a longitudinal dataset on CEOs of large U.S. listed firms across multiple industries between 1993 and 2010, we obtain strong evidence that bank loans to firms steered by CEOs who fly private jets as a hobby tend to incur a higher cost of debt, to be secured, to have more covenants, and to be syndicated. These effects are mainly driven by banks which perceive such firms as having a higher default risk. These relationships become stronger when the CEO is more important to the firm and/or can exercise stronger control over decision-making. Supplemented by field interviews, our results are also robust to various endogeneity checks using different experimental designs, the Heckman two-stage model, a propensity score matching approach, a difference-in-differences test, and the impact threshold of confounding variables.

Keywords: Pilot CEO; Risky hobby; Off-the-job activities; Stakeholder theory; Upper echelons theory

Introduction

A key question in upper echelons research is why firms behave as they do (Hambrick and Mason 1984, p.193). An equally important question, while much less attended to, is how stakeholders perceive the way firms behave. This is because when firms appeal to stakeholders for resources (Freeman 1984, Freeman et al. 2004), stakeholders face decisional constraints and must rely on additional social cues to facilitate their decisions about what (if any) and how much resources to extend to the firms. Due to the visibility of chief executive officers (CEOs) in firms (Hambrick and Mason 1984, Finkelstein et al. 2009), their personal characteristics will partially shape the lens through which stakeholders view the firms.

While CEOs' work-related experiences usually reflect their competence, their activities or behaviors outside of office often reveal their attitudes and preferences. Similar to executives' work-related, observable characteristics such as tenure (Hambrick and Fukutomi 1991, Henderson et al. 2006), formal education (Hambrick et al. 1992, Datta and Guthrie 1994), and functional background (Michel and Hambrick 1992, Beal and Yasai-Ardekani 2000), their personal activities outside the corporate arena can draw a fair amount of attention from stakeholders evaluating the firms. Researchers have therefore begun delving into CEOs' personal lives outside of the workplace in recent years. They have scrutinized a CEO's personal usage of corporate jets (Yermack 2006), home purchase (Cronqvist et al. 2012, Liu and Yermack 2012), child-rearing (Dahl et al. 2012), personal tax evasion (Chyz 2013), marital status (Nicolosi and Yore 2015), ownership of luxury goods (Davidson et al. 2015, 2016), and early-life exposure to natural disasters (Bernile et al. 2017).

To examine executives' personal lives outside of the workplace is important because like everyone else, executives' cognitive base and value systems are shaped by their activities both on and off the job (March and Simon 1958, Mischel 1977, Hambrick and Mason 1984). Different from work-related experiences, off-the-job activities are less likely to be affected by firm characteristics (Davidson et al. 2015). In this regard, a better understanding of how executives' off-the-job activities shape key stakeholders' evaluation of firms would help advance both the upper echelons literature and stakeholder theory.

This study examines one interesting yet underexplored dimension of executives' off-the-job activities—a CEO's personal hobby of piloting a private jet—and investigates how such a risky hobby may influence external stakeholders' evaluation of the CEO and his/her firm. We focus on one particular group of credit stakeholders, namely banks (Soleimani et al. 2014), which represent an important source of financing for firms. Firms will often try their best to meet the demands of stakeholders that control critical resources (Pfeffer 1981). In our setting, firms heavily depend on credit stakeholders for capital. An important question in both upper echelons theory and stakeholder theory then is how credit stakeholders such as banks may evaluate the firm via the lens of the CEO's personal characteristics.

A select group of CEOs are known to fly small aircraft for pleasure (Lublin 2012). Between 1992 and 2009, 179 out of 3,110 CEOs of large publicly listed companies in the U.S. held a license for piloting private planes (Cain and McKeon 2016). Among them was Larry Ellison, who founded Oracle Corporation. But flying planes also represents one of the riskiest hobbies. For example, McFall (1992) found that the mortality rate from piloting a small aircraft for enjoyment more than doubled for individuals who qualify for average life expectancy. Over the years, the media has every now and then reported shocking news about CEOs of large firms who crashed their own planes and died.[1] Pilot CEOs must be aware of these risks and so the fact that they still choose to fly a small aircraft as a hobby may reflect their inherent taste for risk-taking. Indeed, Cain and McKeon (2016) and Sunder et al. (2017) have used piloting of small aircraft as a proxy for CEOs' risk-taking tendancy.

This study argues that CEOs' risky hobbies, such as piloting a small aircraft, may in fact have undesirable consequences for their firms in the context of bank loans. Specifically, we predict that banks will design loan contracts more scrupulously for those firms that are steered by CEOs holding a private pilot license. Banks are important credit stakeholders and bank loans are a major source of corporate finance

[1] Examples include Daniel Dorsch, former CEO of Checkers Drive-In Restaurants, Inc. who died in 2009; Douglas J. Sharratt, CEO of ProSoft Technologies, who died in 2008; Jeanette Symons, CEO of Industrious Kid, Inc., who died in 2008; Bruce R. Kennedy, former CEO of Alaska Airlines, who died in 2007; Michael F. Wille, CEO of The Title Company, Inc., who died in 2006; David R. Burke, Sr., CEO of CeleXx Corp., who died in 2001; Michael A. Chowdry, CEO of Atlas Air, Inc., who died in 2001; and J. Wesley Rogers, CEO of Oceaneering International, Inc., who died in 1986.

(Graham et al. 2008). According to the flow of funds data from the Federal Reserve System, $780 billion worth of net debt securities were issued during the 2000s, compared with only $2 billion worth of net equities; some 54% of total debt issues were bank loans (Kim et al. 2011). Despite these astounding figures, how corporate executives' characteristics—especially their personal hobbies—influence the terms of bank loan contracting has rarely been examined.

This study focuses on a CEO's personal hobby of flying a small aircraft. Previous research has used work-related factors such as career horizon (Matta and Beamish 2008) and demographic factors such as age and gender (MacCrimmon and Wehrung 1990, Faccio et al. 2015) to capture others' perceptions of an executive's risk-taking tendency. But a CEO's hobby of flying may represent a cleaner proxy that is less subject to potential noise than either career horizon or demographic factors. Moreover, flying a small plane is a personal lifestyle choice that is unlikely affected by firm conditions (Sunder et al. 2017).

We argue that banks will design loan contracts more scrupulously (i.e., specify less favorable terms and apply a lower syndicate concentration) for those firms that are run by pilot CEOs, mainly because they perceive a higher default risk associated with such firms. Specifically, we predict that bank loans to firms led by pilot CEOs incur a higher cost of debt, are more likely to be secured, have a larger number of covenants, and are more likely to be syndicated. We further examine those moderators that either strengthen or weaken the pilot CEO-bank loan contracting relationship. Naturally, when a CEO is a more prominent figure or has greater control over decision-making in the firm, stakeholders will rely more on his/her personal characteristics in evaluating the firm. In particular, when the firm purchases key man insurance for its CEO or when the firm has a less independent board, the effect of pilot CEOs on bank loan contracting will be stronger.

To gain a richer understanding of the phenomenon of interest in this study, we also interviewed senior bankers and loan officers to provide complementary grounding for our theory development. Our theoretical predictions are supported by the results of statistical analyses using a large longitudinal dataset on 74 pilot CEOs and 1,529 non-pilot CEOs of large U.S. publicly-listed firms across multiple industries

during 1993-2010. Our results are robust to endogeneity checks using different experimental designs, the Heckman two-stage model, a propensity score matching approach, a difference-in-differences (DID) test, and the impact threshold of confounding variables. Our results are also economically significant. Firms led by a pilot CEO will face much tighter loan terms than firms run by a non-pilot CEO: a 18.0-basis-point wider loan spread (11.84% of sample mean), a 7.39% higher probability of loan security (18.95% of sample mean), 0.58 more total covenants (13.36% of sample mean), a 0.02 lower syndicate concentration (33.33% of sample mean).

Our findings contribute to the relevant literature in the following regards. First, our study sheds light on both upper echelons theory and stakeholder theory by introducing executives' private activities to the firm-stakeholder relationship. An essential message of stakeholder theory is that a firm can be seen as a nexus of relationships among its stakeholders with the objective of creating value (Freeman 1984, Freeman et al. 2004, Jones 1995, Parmar et al. 2010). Stakeholders create value for the firm by providing important resources (Pfeffer and Salancik 1978, Freeman et al. 2004). They can influence this value-creation process by deciding whether or not to engage in a relationship with the firm (Hill and Jones 1992), and if they do decide to engage, how much to contribute to its value-creation activities (Bridoux and Stoelhorst 2013). In making these decisions, stakeholders may evaluate a firm from the perspective of the personal characteristics of its executives (Pfeffer 1981, Fanelli and Misangyi 2006). Apart from executives' work-related experiences and social roots (Finkelstein et al. 2009), their off-the-job activities can also influence stakeholders' perceptions and evaluation of the firm. We show that CEOs' risky hobby of piloting small airplanes can effectively shape firm-stakeholder relationships.

Moreover, this study expands our knowledge with a fresh look at credit stakeholders. Previous research on stakeholder theory has examined how executives may affect firm decisions and performance through their interactions with various stakeholders including shareholders, employees, consumers, investors, and governments (Freeman 1984, Hillman and Keim 2001, Carroll and Buchholtz 2014). Although finance or accounting research has paid adequate attention to credit stakeholders (e.g., Graham

et al. 2009, Kim et al. 2011), management research seems to have made limited endeavor along this line (Soleimani et al. 2014). Bank loans are a major source of capital for most firms (Graham et al. 2009) and so most firms will have to deal with credit stakeholders at some stage (Freeman 1984, Freeman et al. 2010). Probing how CEOs' risky hobby influences bank loan contracting thus offers a useful research angle.

In addition, bank loan contracting presents an opportune setting for examining how banks evaluate firms steered by pilot CEOs. The way banks see a pilot CEO, and more generally their opinion of the firm, would be strongly reflected in both the price (interest rate) and non-price (likelihood of being secured, collateral requirement, and covenant restrictions) terms of debt in the loan contract. Examining bank loan contracting thus allows us to analyze more comprehensively how credit stakeholders evaluate firms led by executives engaged in certain off-the-job activities.

Theoretical Background

CEO Off-the-Job Activities

There is a strong tendency, the so-called "fundamental attribution error" (Weber et al. 2001: 583), for stakeholders and outsiders to attribute a firm's behaviors and outcomes to its executives, especially the CEO (Chen and Meindl 1991). For example, Hayward et al. (2004) suggest that journalists often attribute the strategic actions and performance of a firm to its CEO. CEOs' personal activities can influence their cognitions and values, which in turn can affect firm decisions and performance (Hambrick and Mason 1984). For this reason, a firm's underlying quality is usually assessed based on the characteristics of its CEO and stakeholders usually judge firms from the CEOs' observable activities and experiences. For example, Graffin et al. (2013) find that when making decisions on the compensation of a newly-appointed early-stage CEO, boards tend to refer to his/her prior CEO experience.

While previous research has mostly focused on CEOs' work-related experiences (Hambrick and Fukutomi 1991, Carpenter et al. 2001, Crossland et al. 2014), an emergent literature has examined how executives' off-the-job activities may affect different aspects of firms. For example, with data on 237 Fortune 500 firms for 1993-2002, Yermack (2006) found that CEOs' personal use of corporate jets led to

inferior shareholder returns. Examining a sample of small Danish firms, Dahl et al. (2012) found that fathering a child strongly influenced the way a male CEO treated his employees. Using data on the recent primary home purchases of CEOs of S&P 1500 firms in 2004, Cronqvist et al. (2012) found that CEO personal leverage was positively associated with corporate leverage. Based on a sample of CEOs of S&P 500 companies in 2004, Liu and Yermack (2012) found that a firm's performance declined after its CEO acquired a luxurious mansion or estate. Studying a sample of 1,055 U.S. public firms from 1996 to 2002, Chyz (2013) found that corporate executives' personal tax evasion was positively related to tax sheltering at the firm level. Roussanov and Savor (2014) studied CEO marital status with a sample of S&P 1500 firms for 1993-2008 and found that single CEOs are more risk-seeking, and this effect is stronger for younger CEOs. In a study of S&P 1500 firms from 1993 to 2005, Nicolosi and Yore (2015) found that CEOs who had experienced marital status changes were more likely to initiate risky strategic actions.

CEOs' Hobby of Flying Private Planes

The research on executives' off-the-job activities has recently been extended to the area of personal hobbies. According to the Merriam-Webster dictionary, a hobby is defined as "an activity or interest outside of one's regular occupation that is engaged in primarily for pleasure and relaxation". Since hobbies contribute to a major part of one's personal activities, a CEO's personal hobbies would likely also have consequences for firm decisions and outcomes. For example, Davidson and colleagues (2015) examined a sample of U.S. public firms between 1992 and 2004 and found that CEOs who collected luxury goods were more likely to engage in business fraud. In a follow-up study, Davidson et al. (2016) showed that such CEOs contributed less to corporate social responsibility. Meanwhile, other researchers have noted that many CEOs enjoy piloting small aircraft (Cain and McKeon 2016, Sunder et al. 2017). For example, Cain and McKeon (2016: 146) identified 179 pilot CEOs in their sample between 1992 and 2009, equivalent to 6.5% of all observations; Sunder et al. (2019: 215) identified 88 pilot CEOs in their sample between 1993 and 2003, representing 7.77% of all observations.[2]

[2] Comparable to their samples, our sample has 74 pilot CEOs, who make up 6.25% of all observations .

CEOs pilot small planes mainly for fun and not out of business necessity. But this hobby is also a very risky one. Actuarial research has shown that the mortality rate from piloting a small aircraft can double for a 40-year-old man who qualifies for average-life-expectancy insurance policies (McFall 1992). Indeed, life insurance policies and fatality analyses suggest that operating small aircraft is a high-risk activity (Cain and McKeon 2016). Despite the risk of crashing and suffering serious injuries or even losing their lives, some CEOs still fly small planes recreationally (Lublin 2012). This is because flying small planes can satisfy their desire for speed, thrills, and excitement. Social psychology research suggests that some individuals have an innate need for thrills and certain sensations (Zuckerman 1994, Grinblatt and Keloharju 2009). Sensation seeking is a personality trait in which the individual seeks "varied, novel, complex and intense sensations and experiences" despite the physical, social, legal, and financial risks involved (Zuckerman 1994: 27). Like skydiving and downhill skiing, piloting an aircraft can well capture one's sensation-seeking and risk-taking tendency (Zuckerman 1971). "Pilot CEOs primarily fly as a hobby, rather than as a business necessity, … measuring personal risk-taking preferences rather than behavior driven by circumstance" (Cain and McKeon 2016: 141). Therefore, CEOs who pilot small planes as a hobby are likely to have a strong preference for risk-taking.

Recent studies have investigated how CEOs' hobby of flying planes may affect firms. For example, in a study of 179 pilot CEOs and 2,931 non-pilot CEOs, Cain and McKeon (2016) found that firms with pilot CEOs at the helm were associated with more firm risks and engaged in more risky activities. Using a similar sample of CEOs, Sunder et al. (2017) found that firms led by pilot CEOs generated significantly stronger innovation outcomes, largely driven by their risk-taking preferences.

Nevertheless, the existing research is preliminary, and most of the efforts made are related to how CEOs' off-the-job activities affect their own decisions and performance, but not how key stakeholders—especially credit stakeholders—may view and react to these activities. Stakeholders are known to pay

attention to executives' personal lives outside of the workplace when deciding what support to extend to their firms. For example, when asked whether CEOs' off-the-job activities were relevant in bank loan decisions, a Vice President of commercial debts at a major U.S. international bank who possessed about 10 years of commercial loans experience told us the following:

> "We do proactively seek this type of personal information, and such information, if available, is very important for our loan decisions."

In another interview, we asked the Executive Vice President at a bank listed on the NYSE whether the private lives of CEOs of borrowing firms mattered in his loan decisions, this senior banker responded with the following:

> "Bankers want to loan their money to those who have impeccable credentials and references. How you lead yourself and conduct both your business and personal life gives the lender a clue about how you are likely to handle leadership as a CEO. It's a banker's responsibility to look at the downside of making a loan. Your character immediately comes into play if there is a business crisis, for example. For quite a few business owners, you place your personal stamp on everything that affects your companies."

Given the importance of credit stakeholders such as banks for firm success, this study explicitly examines how their loan decisions are affected by a CEO's piloting hobby.

Bank Loan Contracting

Strategic management research has expanded its focus from shareholders only in the earlier days to a much broader group of stakeholders (Freeman 1984). A key message of stakeholder theory is that firms are embedded in relationships with various stakeholders, who create value for the firms by providing critical resources (Pfeffer and Salancik 1978, Freeman 1984). Among all stakeholders, credit stakeholders provide firms with arguably the most important access to financial support (Cheng et al. 2014). Banks are prominent credit stakeholders, and their loans are a major source of capital for firms (Graham et al. 2008). But information asymmetry exists between banks and firm borrowers, and banks will design loan contracts that minimize the default risk (Kim et al. 2011).

A loan contract contains both price and non-price terms. For price terms, a bank can specify the loan spread, which is the rate of interest that the borrower has to pay in basis points in excess of LIBOR (London Interbank Offered Rate) or its equivalent; for non-price terms, a bank can decide whether or not to secure the loan, and how many covenants to use in debt contracting. In addition, a loan contract can specify how lenders structure loans: less concentrated lending arrangements (e.g., more lenders) are made to spread risk in situations where uncertainty is high and information asymmetry is severe between lenders and borrowers (e.g., Carey et al. 1998, Dennis and Mullineaux 2000, Sufi 2007). Therefore, bank loan contracts can vary in terms of how tight the contracting terms (both price and non-price) are and how the loan is structured. A firm that is associated with a higher default risk will normally receive loan contracts that are more scrupulously designed, e.g., the bank may ask for a higher interest payment, require the debt to be secured, demand more covenants, and the loan is more likely to be syndicated (i.e., involving more lenders) (Graham et al. 2008, Kim et al. 2011).

Default risk is the primary criterion that banks use when writing loan contracts. Graham and his colleagues (2008) examined a sample of 237 U.S. public firms having 2,451 loans during the period from 1989 through 2004. They found that firms engaged in financial restatement (which increases their default risk) and seeking a loan received bank loan offers featuring higher spreads, a shorter maturity, and more covenants, and the loans involved more lenders and were more likely to be secured. Similarly, in a study of 1,363 U.S. public firms over the period of 2005-2009, Kim et al. (2011) also documented that banks imposed higher interest rates and tighter non-price terms on those firms that had previously disclosed internal control weaknesses under the Sarbanes-Oxley Act of 2002.

While prior stuties have helpfully identified firm-level factors that influence bank loan contracting, it is lesser known how executive characteristics—especially their off-the-job activities—may influence the way banks evaluate a firm when designing a loan contract. In the following section, we explain how banks—as an important group of credit stakeholders—may design a loan contract for a firm steered by a pilot CEO.

Hypotheses

Pilot CEOs and Bank Loan Contracting

CEOs are not required to fly their own jets for work. They can use corporate jets (Yermack 2006) or fly commercial. They fly their own jets as a hobby purely for pleasure (Lublin 2012). Given the high risk inherently involved in flying a small aircraft (McFall 1992), credit stakeholders such as banks would likely associate this personal hobby with a risk-taking tendency and thrill-seeking orientation. Since CEOs with a stronger risk-taking orientation tend to make bolder and riskier strategic decisions (Simsek 2007), pilot CEOs are expected to lead their firms in bolder directions. As far as potential lenders are concerned, the default risk of a loan would dramatically increase for firms that move in bolder directions and take excessively risky actions. As a result, credit stakeholders such as banks would associate firms led by pilot CEOs with a higher default risk. In order to mitigate heightened default risks, banks will design loan contracts in a more scrupulous manner. In particular, they may specify more unfavorable and tighter terms in the loan contract. In addition, they may involve more lenders in the loan contract to spread potential default risks and as a result, the syndicate concentration tends to be lower.

Several of our interviews with bankers confirmed that they and their colleagues did take CEOs' risky hobbies into serious consideration when designing loan contracts. When asked whether the risky hobbies of a CEO, such as piloting or skydiving, would affect his/her loan decision, a senior corporate loan officer from a major regional bank in a northeastern state in the U.S. responded as follows:

> "I believe so. No one in our industry is comfortable about greater personal risk. That is for sure … aggressive CEOs or aggressive firms will not get our favorable terms. We care about whether you are able to pay us back in the future, not about growth."

A senior banker in Philadephia who is mainly responsible for making commercial loans to public firms listed on the NYSE responded to the same question with the following:

> "We will carefully re-consider loan terms or ask clients for extra business insurance when we perceive their CEOs as having some risky hobbies, because this necessarily increases the default risk."

To further lend credit to our theoretical arguments, we conducted two online experiments. We recruited 218 participants on Amazon Mechanical Turk (53.1% male; 46.3% aged above 30, and 54.1% with more than five years of working experience) for experiment 1. We recruited 37 bankers (64.9% male; 89.2% aged above 30, and 81.1% with more than five years of working experience in banking industry) for experiment 2. This experimental procedure is reported in detail in the online Appendix B and the full version of the questionnaire is attached in the online Appendix C. The results indicate that bankers view pilot CEOs as more risk-taking. Based on these theoretical arguments and contextual evidence, we draw the following predictions:

> ***Hypothesis 1a (H1a).*** *Firms led by pilot CEOs are more likely to receive bank loan contracts with tighter terms.*
>
> ***Hypothesis 1b (H1b).*** *Firms led by pilot CEOs are more likely to receive bank loan contracts with a lower syndicate concentration.*

Moderating Effects

To further validate the proposed mechanism, we also explore the contingencies of the relationship between pilot CEOs and bank loan contracting. As Hambrick and Mason (1984: 197) have insightfully put it, "the combination of certain situational conditions and upper echelon characteristics will lead to strategic choice that could not have been predicted as strongly by knowing only one of the other". Therefore, we examine those contextual factors that may moderate the effect of CEO piloting behavior on bankers' perception of the firm. In particular, we highlight how important the CEO is to the firm and how much control the CEO can exercise over the firm.

CEOs' Importance within Firms. The first moderator is how important the CEO is to his/her firm. Some CEOs matter more to their firms than others do. A CEO who is considered more important to his/her firm will be given more leeway and power in their decision-making. For this reason, a more important CEO would have a louder voice in the decision-making of the firm. Consequently, the firm's decisions are more likely to be influenced by the CEO's personal preferences. Since bankers' perception of a pilot CEO's risk-taking tendency drives the relationship between pilot CEOs and bank loan contracting, when the CEO

matters more to the firm, bankers will believe the firm's default risk to be more strongly influenced by the CEO's risk-taking tendency. Accordingly, banks might impose even more unfavorable terms on firms that are led by pilot CEOs who are highly important to the firms and they are more likely to spread risks by forming a less concentrated syndicate. We capture the importance of a CEO to his/her firm by a unique proxy: whether the firm has purchased key man insurance for its CEO (Israelsen and Yonker 2017). In key man insurance, the CEO lists his/her firm as the sole beneficiary of life insurance contracts. In the event that the CEO dies, the firm receives the face value of the insurance policy. Certainly, if the firm is willing to spend money on such insurance, it reflects the importance of the CEO to the firm. Therefore, we have the following hypotheses:

> ***Hypothesis 2a (H2a).*** *The relationship between pilot CEOs and unfavorable bank loan terms is stronger when the firm has purchased key man insurance for its CEO.*
>
> ***Hypothesis 2b (H2b).*** *The relationship between pilot CEOs and a lower syndicate concentration for a bank loan is stronger when the firm has purchased key man insurance for its CEO.*

CEOs' Control over Decisions. Another moderator is the extent to which a CEO can exercise control over the firm's decision-making. When the CEO can exercise stronger control over firm decisions, the firm's direction and fate are more likely driven by the CEO's personal preferences. One factor that determines a CEO's control over decision-making in firms is board independence. Agency theory (Eisenhardt 1989, Jensen and Meckling 1976) suggests that better-designed governance mechanisms can help monitor the activities of CEOs more effectively to ensure that they behave in the best interests of shareholders. Board independence is one such mechanism. We expect board independence—measured by the independent outside director ratio—to curb the influence of a CEO over firm decisions. Independent outside directors provide more effective monitoring mainly because they have fewer conflicts of interests than inside or affiliated directors do (Larcker and Tayan 2011). Prior research has suggested that boards with a higher ratio of independent outside directors are better able to keep managers in check; they also evaluate management proposals more comprehensively and are less likely to support decisions that could harm shareholders in the long run (Larcker and Tayan 2011, Rosenstein and Wyatt 1990). By contrast,

insider-dominated boards control CEOs' influence less effectively (Beatty and Zajac 1994). Therefore, the less independent the board is, the stronger the CEO's control over the firm, and if this CEO is also a pilot, then bankers would perceive an even greater default risk associated with the firm. Therefore, we have the following hypotheses:

> ***Hypothesis 3a (H3a).*** *The relationship between pilot CEOs and tighter bank loan terms is stronger when the board is less independent.*
>
> ***Hypothesis 3b (H3b).*** *The relationship between pilot CEOs and a lower syndicate concentration for a bank loan is stronger when the board is less independent.*

Methods

Sample

We start with all of the 41,563 bank loan observations available in the DealScan database for 1993-2010. We exclude 7,887 observations in the financial services and utilities industries. We drop 732 observations with bridge loans and non-fund-based facilities, such as leases and standby letters of credit. We further remove 25,404 observations not covered by the Compustat ExecuComp database. We leave out 1,445 observations due to the lack of data necessary for constructing the control variables. Lastly, we remove 14 observations of project financing loans, since the interest payments on project financing loans are much higher than those on other types of loans. Our final sample consists of 6,081 bank loan-year observations. We extract financial data from Compustat, stock return data from CRSP, and CEO compensation data from Execucomp. The majority of the drop (61.1%) in the number of observations in our sample is attributed to the fact that those observations are not covered by the Compustat ExecuComp database since this database only covers S&P 1500 companies. Our sample selection procedure is similar to those adopted in the prior literature (Kim et al. 2011, Francis et al. 2013, Huang et al. 2016).

Dependent Variables

The dependent variable, ***Bank Loan Contracting***, measures the following features of a loan contract: (1) the price term, or the drawn all-in spread (***Loan Spread***); (2) the non-price terms, including collateralization

(***Secured***) and the ***Number of Total Covenants*** included in each loan;[3] and (3) the ***Syndicate Concentration*** of the loan.

We use the price term to measure the interest payable to the lender for a bank loan. The price term is calculated as the drawn all-in spread in basis points (plus any annual fee and upfront/maturity fee) in excess of the benchmark rate (***Loan spread***), or LIBOR.[4] This price term represents the risk premium lenders charge based on the risk profile of each borrower. Thus, the drawn all-in spread reflects the level of default risk of a loan as far as lenders are concerned.[5] In essence, ***Loan Spread*** is the interest cost of a bank loan.

In addition to price terms, lenders may also include in the contract non-price terms such as collateral and restrictive covenants to mitigate potential default risks. To protect their financial interests and minimize potential losses from loan defaults, lenders may require collateral assets (Bradley and Roberts 2004). ***Secured*** is measured by a binary variable that is equal to 1 if the bank loan is collateralized, and 0 otherwise. Lenders may also require the inclusion of restrictive covenants in loans to borrowers associated with higher default risks (Bradley and Roberts 2004). These general and financial covenants often limit managers' operating, investing and financing activities. ***Number of Total Covenants*** is measured by the number of general and financial covenants specified in a loan contract. More covenants imply greater constraints imposed on borrowers.

Finally, when borrowers are associated with higher default risks, the lead bank would have stronger incentives to spread risks by bringing in other banks to form a syndicate and offer loans jointly (i.e. syndicated loans). The structure of a syndicate reveals the risk distribution among the lead bank and other banks involved (e.g., the proportion of the total loan that each syndicate bank is providing). The syndicate loan literature has shown that forming a syndicate can help diversify a bank's loan portfolio by spreading

[3] Our results are robust to replacing the number of total covenants with the number of general covenants or financial covenants.
[4] LIBOR is the average interest rate that the leading banks in London would charge each other for loans.
[5] Drawn all-in spread = loan interest rate – LIBOR.

the credit risk among all participating banks (e.g. Carey et al. 1998, Sufi 2007). Involving more lenders means a less concentrated ownership and helps reduce the credit risk borne by any single lender. ***Syndicate Concentration*** is measured by a Herfindahl index calculated from the respective contributions of the lead bank and syndicate banks to the loan. The higher the ***Syndicate Concentration***, the higher the proportion of the total loan that the lead bank would be responsible for.

Independent Variable

Our independent variable, ***Pilot CEO***, is measured by a dummy variable indicating whether or not a CEO has a private pilot license. The main data source is Cain and McKeon (2016) who first collected a sample of CEO names from the ExecuComp database before searching extensively for the CEO names in the Federal Aviation Administration (FAA)'s Airmen Certification Database.[6] If a name could not be found, they assumed that the particular CEO was not a pilot. However, for every name with at least one match in the database, they collected additional information such as birth date, home address, and other personal information extracted from LexisNexis, Bloomberg, and other public records to confirm the match. Specifically, ***Pilot CEO*** is equal to 1 if the CEO holds a pilot license, and 0 otherwise. After merging DealScan, Compustat, and other databases, our final sample covers 74 pilot CEOs and 1,529 non-pilot CEOs between 1993 and 2010.

Moderating Variables

There are two moderating variables in this study: ***Key Man Insurance*** and ***Lack of Board Independence***. Following Israelsen and Yonker (2017), purchasing key man insurance for the CEO reflects the importance of the CEO to the firm. Specifically, ***Key Man Insurance*** is measured by an indicator variable that is equal to 1 if the CEO lists his/her firm as the sole beneficiary in the corporate-owned life insurance, and 0 otherwise. In the event that the CEO dies, the firm receives the face value of the insurance policy. ***Lack of Board Independence*** is measured by minus one times the percentage of independent outside directors on a board, which is the number of independent outside directors divided by the board size.

[6] http://www.faa.gov/licenses_certificates/airmen_certification/releasable_airmen_download/.

Control Variables

CEO characteristics. Following previous studies (e.g., Cain and McKeon 2016), we control for a number of CEO characteristics in our models. First, we include ***Age 50-59***, which is a dichotomous variable that is equal to 1 if the CEO's age falls between 50 and 59 (both inclusive), and 0 otherwise. We include ***Age>=60***, another dichotomous variable that is equal to 1 if the CEO is aged 60 or above, and 0 otherwise. Second, we control for ***Female CEO***, which is equal to 1 if the CEO is a female, and 0 otherwise. Third, we control for ***Ln(Tenure)***, which is the natural logarithm of the number of years the CEO has held the top position at a given firm. In addition, we control for overconfidence in the analyses. Following Malmendier and Tate (2005), we measure ***Overconfidence*** by the principal component of three measurements: *Holder100, CAPEX*, and *Over-Invest*. *Holder100* is equal to 1 if the ratio of the value of options in the money to the average strike price exceeds one at least twice during the sample period, and 0 otherwise. *CAPEX* is equal to 1 if the capital expenditures deflated by lagged total assets exceed the median level in the firm's industry classified by Fama and French (1988),[7] and 0 otherwise. *Over-Invest* is equal to 1 if the residual of a regression of total asset growth on sales growth run by industry-year is greater than zero, and 0 otherwise.

Characteristics of bank loan contracting. We control for a set of loan characteristics in addition to spread (Qian and Strahan 2007, Graham et al. 2008, Boubakri and Ghouma 2010, Qi et al. 2010, Kim et al. 2011). These loan characteristics are ***Ln(Facility Amount)*** measured by the natural logarithm of the amount of facility the lender pool has committed, ***Ln(Maturity)*** measured by the natural logarithm of the number of months to maturity, and ***Performance Pricing*** measured by an indicator variable that is equal to 1 if the loan contract includes performance pricing provisions, and 0 otherwise.

Firm characteristics. We control for a set of firm characteristics, including ***Ln(Total Assets)***, ***Leverage***, ***Return on Assets***, ***Operating Cash Flow Volatility***, ***Tangibility***, ***MB***, ***Credit History***, and ***Firm Age***, all measured at the fiscal year end before the loan was initiated. ***Ln(Total Assets)*** is measured by the

[7] Following Fama and French (1988), we classify our sample into 48 industries and then drop all observations in the regulated (utilities) and financial (banking, insurance, real estate and trading) industries.

natural logarithm of the book value of assets. ***Leverage*** is measured by total liabilities scaled by total assets. ***Return on Assets*** is measured by income before extraordinary items scaled by total assets. ***Operating Cash Flow Volatility*** is measured by the standard deviation of operating cash flow scaled by total assets over the last five fiscal year. ***Tangibility*** is measured by property, plant, and equipment scaled by total assets. ***MB*** is measured by the market-to-book ratio. ***Credit History*** is measured by the average Z-score during the last five years. ***Firm Age*** is the natural logarithm of firm age.

Macroeconomic factors. We also control for four macroeconomic factors. ***Credit Spread*** is measured by the difference in yields between corporate bonds rated BAA and those rated AAA one month before the loan became active. ***Term Spread*** is measured by the difference in yields between ten-year and two-year U.S. Treasury bonds one month before the loan became active. Finally, we include ***Industry*** and ***Year*** fixed effects in all of the models.

All variables are described in detail in the online Appendix A.

Analytical Approach

Our main research question is how pilot CEOs affect bank loan contracting terms. Our analytical unit is the bank loan. Our dependent variables are *Loan Spread*, *Secured*, *Number of Total Covenants*, and *Syndicate Concentration*. We test *Loan Spread* and *Syndicate Concentration* using ordinary least squares regression. Since *Secured* is an indictor variable, we use logistic regression. And because *Number of Total Covenants* is a count variable, we conduct Poisson regression. Following previous bank loan studies (Graham et al. 2008), we correct the standard errors robust to heteroscedasticity.

Results

Table 1 presents the descriptive statistics of variables and their correlations. We test the variance inflation factors and find them to be in general much lower than the threshold value of 10 (Cohen et al. 2003). Hence multicollinearity is unlikely a serious concern in this study.

------Insert Table 1 about here-----

Table 2 presents the estimates relating pilot CEOs to bank loan contracting, measured by *Loan Spread*, *Secured*, *Number of Total Covenants*, and *Syndicate Concentration*. Model 1.1 shows the results for *Loan Spread*. *Pilot CEO* is positively related to *Loan Spread* ($\beta = 0.18$, $p < .001$). The 95% confidence interval ranges from 0.09 to 0.28. This effect is economically significant: firms with pilot CEOs at the helm incur higher costs of debt (by 18.0 basis points[8]) than firms run by non-pilot CEOs. To estimate the impact of pilot CEOs on the likelihood that a loan is secured, we consider *Secured* as the dependent variable in Model 1.2 of Table 2. The coefficient on *Pilot CEO* is 0.32, which is significantly positive ($p < .05$). The 95% confidence interval ranges from 0.07 to 0.57. The probability that a loan is secured is 7.39% higher for firms led by pilot CEOs.

Model 1.3 examines the relationship between pilot CEOs and the number of covenants. The coefficient of *Pilot CEO* is significantly positive ($\beta = 0.16$, $p < .001$), which means firms with pilot CEOs at the helm face a greater number of covenants. The 95% confidence interval ranges from 0.08 to 0.23. For economic significance, firms with pilot CEOs face 0.58 more total convenants than firms without pilot CEOs. This figure is 13.36% of the sample mean. We also test the relationship between pilot CEOs and the number of general covenants or the number of financial covenants. The untabulated results are qualitatively similar to those from Model 1.3. The results from Models 1.1-1.3 are consistent with our Hypothesis 1a that firms with pilot CEOs at the helm are often given unfavorable bank loan contracting terms.

Model 1.4 presents the results relating pilot CEOs to syndicate concentration. The coefficient of *Pilot CEO* is -0.02, which is significantly negative ($p < .01$). The 95% confidence interval ranges from -0.03 to -0.01. This shows that loans extended to firms with pilot CEOs have a lower syndicate concentration. The economic significance test shows that syndicate concentration is 0.02 lower for firms with pilot CEOs than for firms without pilot CEOs. This figure represents 13.33% of the sample standard deviation. Clearly, economic significance is nontrivial. Forming a syndicate helps diversify a bank's loan portfolio by

[8] The unit of *Loan Spread* is 100 basis points. 0.180 times 100 is equal to 18.0 (basis points), which equals 11.84% of the sample mean (152 basis points).

spreading the credit risk among the banks involved (Carey et al. 1998, Sufi 2007). Involving more lenders and adopting a less concentrated ownership structure can help reduce the credit risk of a loan borne by a single lender. In our setting, since lender banks perceive borrower firms steered by pilot CEOs as having a higher default risk, they would want to reduce their own risk by contributing less to the total loan. Our result renders support to Hypothesis 1b. In sum, the results in Table 2 show that banks view pilot CEOs as a default risk factor, which they will consider when designing loan contracts. Cain and McKeon (2014) found that firms with pilot CEOs take riskier actions. Our evidence thus shows that decisions regarding bank loans to firms headed by pilot CEOs are rational.

------Insert Table 2 about here------

Models 2.1-2.4 of Table 2 present the regression results regarding the interaction effects of *Pilot CEO* and *Key Man Insurance* and of *Pilot CEO* and *Lack of Board Independence* on bank loan contracting. The interaction between *Pilot CEO* and *Key Man Insurance* is significant in three out of four regressions ($p < .05$). These findings in general support Hypotheses 2a: The relationship between pilot CEOs and unfavorable bank loan terms is stronger when the firm has purchased key man insurance for its CEO. The interactions between *Pilot CEO* and *Lack of Board Independence* are significant for loan spread, loan securitization, and number of total covenants ($p < .01$, $p < .05$, and $p < .01$ respectively). Taken together, these results generally show that CEOs' control over decisions within firms strengthens the relationships between pilot CEOs and unfavorable loan contracting terms, consistent with Hypothesis 3a.

Endogeneity Tests

One concern regarding our findings is endogeneity (Roberts and Whited 2013, Clougherty et al. 2016). First, selecting pilot license holder as CEO is an endogenous decision in the firm. Second, the relationship between pilot CEO and bank loan contracting could be determined by the omitted variables (either observable or unobservable). Even though it is impossible to fully eliminate endogeneity, we adopt multiple methods to mitigate its impact on our documented results, including experiments, the Heckman two-stage

model, propensity score matching, a difference-in-differences model, and the impact threshold of confounding variables. As shown in the online appendix D, these results jointly suggest that endogeneity should not be a serious issue in this study.

Discussion

Do firms led by pilot CEOs face tighter bank loan contracting? The short answer is yes. In this study, we find that banks will impose much tighter loan contracting terms on firms led by pilot CEOs. The reason is that pilot CEOs tend to be bigger risk-takers than non-pilot CEOs and so banks will associate their firms with a higher default risk. Under the leadership of pilot CEOs, firms would undertake riskier initiatives, leading to a higher chance of default. Specifically, with a unique longitudinal dataset on 74 pilot CEOs and 1,529 non-pilot CEOs of U.S. publicly listed firms across multiple industries between 1993 and 2010, we find strong evidence supporting our conjecture: bank loans extended to firms led by pilot CEOs are associated with a higher cost of debt and a greater number of covenants and are also more likely to be secured and syndicated. We further find that these relationships are stronger when the CEO is more important to the firm and/or can exercise stronger control over firm decision making.

Theoretical Implications

This study has prominent implications for the existing literature. Previous research tends to focus on the work-related experiences of corporate executives but has devoted less attention to the off-the-job facets of their daily activities (Finkelstein et al. 2009). A recent call has been made for more investigations into how a CEO's personal life outside of his/her workplace affects firm outcomes (Cronqvist et al. 2012, Liu and Yermack 2012, Chyz 2013, Davidson et al. 2015, Nicolosi and Yore 2015). Hobbies form an important part of one's personal life, but how an executive's hobbies may shape the firm's decisions and how stakeholders would see the firm are questions that have rarely been examined (cf. Cain and McKeon 2016). This study investigates one specific hobby that a portion of CEOs enjoy, that of piloting small aircraft. In addition, the existing research has not paid much attention to how stakeholders such as bankers react to executive characteristics. Indeed, stakeholder theory suggests that stakeholder support largely determines a firm's

survival and growth (Pfeffer and Salancik 1978, Freeman 1984). Therefore, how stakeholders evaluate a firm, especially through the lens of leadership characteristics, is worth a thorough investigation. In this regard, this study connects the strategic leadership literature with stakeholder theory to extend our understanding of how executive personal activities outside of the workplace can affect stakeholder evaluations and in turn the creation of value for the firm.

Our study also generates insights for stakeholder theory by incorporating an important yet largely neglected stakeholder group—credit stakeholders—into the landscape. The importance of managing stakeholders to sustain value creation for the firm has long been acknowledged (Donaldson and Preston 1995, Freeman 2010). However, management research on how credit stakeholders affect firm decisions and performance has been limited. Without investigating how executive characteristics may affect credit stakeholders' opinion of and reaction to firms, our knowledge of stakeholder theory remains incomplete. This study uses bankers as one example of credit stakeholders and examines how they design loan contracts for firms steered by pilot CEOs. Like other types of stakeholders, bankers can play an important role in shaping firm decisions and performance. For instance, bank loans are suggested as one important source of capital for firms (Graham et al. 2008). It is thus critical for firms to maintain good credit so that they can obtain loans from bankers when needed. Thus it is useful to understand whether and how particular activities of a firm's CEO may improve or ruin a bank's evaluation of the firm. In this regard, an integration of upper echelons theory and stakeholder theory with a focus on bankers enriches our understanding of how stakeholders interact with firms and how such interactions may affect firms.

Our findings also have important implications for corporate governance research. Pilot CEOs tend to be bigger risk-takers than non-pilot CEOs and to believe resolutely in their own ability to deal with difficulties and challenges. Those pilot CEOs leading firms governed by a less independent board may even take more risks than their firms can actually bear, which goes against shareholder interests. One important implication for corporate governance research is to recognize the potential cost of the lack of board independence in firms, especially when their CEOs enjoy risky hobbies. It is important to consider

executives' personal characteristics in corporate governance research, and a fruitful direction would be to examine the interaction between the corporate governance structure and strategic leadership from the behavioral perspective.

Managerial Implications

Our study has important managerial implications as well. First, it is important to realize that CEOs' personal lives play a role in the success of firms (*Wall Street Journal* 2007). Besides the work-related facets of CEOs' lives, their off-the-job activities can also shape firm strategic decisions and outcomes. Activities, no matter where they take place, can influence the development of one's cognitive structure and mental model. Investors seeking to understand a firm ought to look into the CEO's activities both on and off the job.

Second, since a CEO's personal life away from the workplace matters for firm performance, when evaluating potential CEO candidates, in addition to their working experiences and professional qualifications, boards should also consider their non-work-related activities. The board of directors should know that certain personal hobbies, such as piloting small aircraft, may in fact be a cause for concern for stakeholders. For instance, our study finds that banks—as an important group of credit stakeholders—tend to consider firms run by pilot CEOs as more risky borrowers and will impose tighter terms in loan contracting, which will significantly increase the cost of debt.

Indeed, the media has been fiercely debating whether boards should try to curb chief executives' risky hobbies such as flying planes, racing motorcycles, and diving (*Chicago Business* 2007, *Forbes* 2011). On February 3, 2012, Steven Appleton, CEO of Micron Technology Inc., died when the single-engine Lancair plane he was piloting crashed during takeoff. Back in 2004 he had also crashed his stunt plane and suffered serious injuries. At that time, the board of directors asked the veteran stunt pilot to stop this type of flying, but he never listened (Lublin 2012). William Mower, a partner at the law firm Maslon Edelman Borman & Brand LLP which advised boards on corporate governance, commented that: "The Micron tragedy should be a wake-up call for boards… [many boards will now discuss whether the CEO's hobby]

is something the directors should be worried about" (Lublin 2012). Therefore, an implication of our study is that boards should seriously consider curbing any dangerous recreational activities pursued by their CEOs.

Our findings also have important implications for managerial practices in corporate governance. In order to curb a CEO's risky hobbies which may be detrimental to shareholders' fundamental interests, the firm should carefully reconsider the composition of its board of directors. For example, our finding suggests that setting up a less independent board when the CEO is also a pilot would only encourage his/her aggressive behavior. Bankers, sensing the CEO's aggressive tendency, may impose tighter terms on the firm in loan contracting. Firms should therefore think carefully about the type of board to set up to curb CEOs' undesirable tendencies and protect shareholder welfare.

Limitations and Future Research

This study can be improved in several ways. First, we have assumed that a CEO's piloting hobby affects bank loan contracting through the bank's perception of the firm's default risk. But apart from contextual evidence obtained from the interviews and experiments, we have not directly assessed this mechanism. As it is difficult to assess bankers' perceptions of borrowers' default risk, we verify our proposed mechanism by examining the moderating effects instead. Future research could rely on large-scale surveys or better-crafted experimental designs to directly assess bankers' risk perceptions and test their mediating role in the relationship between CEOs' piloting hobby and bank loan contracting.

Second, it would be naïve to assume that piloting small jets is the best possible measure of CEO risky hobbies. Future research should replicate our findings via other means to capture a CEO's risky activities and behaviors off the job. For example, in addition to piloting small airplanes, a thrill-seeking CEO may pursue other risky activities such as diving, parachuting, motorcycle racing, or bungee jumping (Lublin 2012). Our findings should hold for firms led by CEOs who enjoy risky hobbies other than piloting. Regrettably we are unable to test all risky activities. Fortunately, excluding these other risky hobbies may only bias our results downward by reducing the variance of our predictor. This will actually make it more difficult to find support for our hypotheses. Thus, if the hobby of piloting jets continues to yield significant

findings, then our theory will have been put to a stringent test (Hambrick and Mason 1984: 196). Nevertheless, future research could extend our empirical context to those other settings to reconfirm our theoretical arguments.

Third, interactions between situational and CEO risky behaviors are undoubtedly much more extensive than suggested in this study. Future research could uncover and examine other moderators that govern the relationship between CEOs' piloting hobby and loan contracting. Other potential moderators may be at work in our context. For example, if a CEO enjoys more managerial discretion, then his/her personal characteristics may be reflected to a greater extent in the firm's strategic decisions; in contrast, if a CEO does not have much discretion, the linkage between executive characteristics and firm decisions and outcomes should be less salient (Hambrick 2007) and credit stakeholders would be aware of this. Therefore, managerial discretion may moderate the main-effect relationships in our study (cf. Li and Tang 2010). Moreover, future research could examine how different types of stakeholders may react to a CEO's risky hobbies. For example, venture capitalists may regard a start-up company's CEO who enjoys flying small aircraft as someone with guts and evaluate him/her more positively.

On a final note, it would be equally meaningful to replicate and extend our findings to other cultural and institutional contexts. Our results are based on U.S. public firms. Public firms may behave differently than private firms. Our arguments may work differently for firms operating in emergent economies such as China and India. For example, holding a private pilot license may be more about flaunting one's wealth and status and less about taking risks for the CEO of a private firm in an emergent economy (*South China Morning Post* 2014). For such CEOs, piloting small aircraft serves as a signal to audiences who may even view such a dangerous hobby favorably. Therefore, future research could take a cross-cultural perspective to examine the impacts of pilot CEOs on stakeholder evaluation in other settings.

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Table 1. Means, Standard Deviations, and Correlations of Key Variables

Panel A: Means and Standard Deviations of Key Variables

Variable	Mean	S.D.
Loan Spread	1.52	1.21
Secured	0.39	0.49
Number of Total Covenants	4.34	4.02
Syndicate Concentration	0.06	0.15
Pilot CEO	0.06	0.24
Key Man Insurance	0.09	0.28
Lack of Board Independence	-0.48	0.35
Ln(Facility Amount)	5.47	1.24
Ln(Maturity)	3.62	0.70
Performance Pricing	0.54	0.50
Age 50-59	0.22	0.41
Age >=60	0.76	0.43
Female CEO	0.02	0.15
Ln(Tenure)	1.39	0.71
Overconfidence	0.41	0.46
Ln(Total Assets)	7.68	1.48
Leverage	0.59	0.21
Return on Assets	0.04	0.09
Operating Cash Flow Volatility	0.04	0.04
Tangibility	0.58	0.37
MB	2.97	3.64
Credit History	3.26	3.30
Firm Age	3.07	0.81
Credit Spread	0.94	0.33
Term Spread	1.08	0.98

Panel B: Correlations of Key Variables

Variable		1	2	3	4	5	6	7	8	9	10	11	12	13
Loan Spread	1	1.00												
Secured	2	0.53	1.00											
Number of Total Covenants	3	0.30	0.56	1.00										
Syndicate Concentration	4	0.01	0.06	0.15	1.00									
Pilot CEO	5	0.02	0.01	0.01	-0.04	1.00								
Key Man Insurance	6	0.08	0.11	0.07	0.02	0.03	1.00							
Lack of Board Independence	7	0.08	0.14	0.17	0.05	-0.02	0.06	1.00						
Ln(Facility Amount)	8	-0.35	-0.24	-0.17	-0.24	0.02	-0.11	-0.12	1.00					
Ln(Maturity)	9	0.24	0.26	0.26	-0.05	-0.01	0.04	0.07	-0.02	1.00				
Performance Pricing	10	-0.11	0.13	0.47	0.16	0.00	0.04	0.03	0.02	0.19	1.00			
Age 50-59	11	0.15	0.11	0.04	-0.02	-0.04	0.13	-0.01	-0.01	0.10	-0.01	1.00		
Age >=60	12	-0.18	-0.12	-0.04	0.03	0.05	-0.13	0.00	0.01	-0.13	0.01	-0.94	1.00	
Female CEO	13	0.07	0.06	0.01	-0.01	-0.04	0.01	0.03	-0.04	0.03	-0.03	0.03	-0.04	1.00
Ln(Tenure)	14	0.05	0.03	-0.04	-0.03	0.06	0.11	-0.12	0.05	0.07	0.00	0.01	-0.02	-0.02
Overconfidence	15	-0.04	0.00	-0.01	0.00	-0.02	0.03	-0.07	0.04	0.03	0.02	0.10	-0.10	-0.02
Ln(Total Assets)	16	-0.30	-0.33	-0.35	-0.24	0.07	-0.19	-0.18	0.71	-0.20	-0.15	-0.05	0.07	-0.05
Leverage	17	0.16	0.07	0.01	-0.11	0.03	-0.15	0.04	0.18	-0.05	-0.09	-0.06	0.07	0.00
Return on Assets	18	-0.38	-0.24	-0.10	-0.02	-0.03	-0.01	-0.07	0.14	0.02	0.06	-0.02	0.02	-0.06
Operating Cash Flow Volatility	19	0.00	0.04	0.04	0.07	-0.02	0.00	0.03	-0.17	-0.01	0.05	0.02	-0.01	0.06
Tangibility	20	-0.01	-0.03	-0.01	0.00	-0.01	-0.05	-0.05	0.03	-0.01	-0.02	-0.06	0.09	-0.05
MB	21	-0.18	-0.12	-0.07	0.00	-0.03	-0.03	-0.06	0.08	-0.09	-0.02	0.01	-0.01	0.00
Credit History	22	-0.12	-0.04	-0.02	0.09	-0.03	0.08	-0.11	-0.14	-0.03	0.03	0.02	-0.02	0.08
Firm Age	23	-0.15	-0.22	-0.24	-0.06	0.06	-0.25	-0.23	0.22	-0.12	-0.10	-0.05	0.07	-0.04
Credit Spread	24	0.31	0.07	-0.05	0.00	-0.02	0.06	-0.10	-0.07	-0.08	-0.02	0.17	-0.17	0.03
Term Spread	25	0.27	0.03	-0.07	-0.01	0.00	0.07	-0.10	-0.03	-0.05	-0.05	0.12	-0.12	0.00

Ln(Tenure)	14	1.00											
Overconfidence	15	0.06	1.00										
Ln(Total Assets)	16	0.01	0.01	1.00									
Leverage	17	-0.09	-0.07	0.26	1.00								
Return on Assets	18	0.10	0.07	0.05	-0.29	1.00							
Operating Cash Flow Volatility	19	-0.03	0.04	-0.28	-0.12	0.09	1.00						
Tangibility	20	-0.04	0.10	0.02	0.13	-0.07	-0.09	1.00					
MB	21	0.02	0.12	0.06	0.05	0.25	0.09	-0.05	1.00				
Credit History	22	0.05	0.11	-0.18	-0.37	0.17	0.20	-0.11	0.14	1.00			
Firm Age	23	0.00	-0.02	0.37	0.15	0.01	-0.08	0.11	-0.01	0.01	1.00		
Credit Spread	24	0.14	0.02	0.01	-0.02	-0.12	-0.01	-0.01	-0.02	0.03	0.05	1.00	
Term Spread	25	0.15	0.01	0.03	0.02	-0.08	-0.03	0.00	-0.05	-0.01	0.06	0.45	1.00

Correlations with a magnitude greater than 0.02 are significant at $p < 0.05$.

Table 2. Regression of Pilot CEOs on Bank Loan Contracting

	Model 1.1 *Loan Spread*	Model 1.2 *Secured*	Model 1.3 *Number of Total Covenants*	Model 1.4 *Syndicate Concentration*	Model 2.1 *Loan Spread*	Model 2.2 *Secured*	Model 2.3 *Number of Total Covenants*	Model 2.4 *Syndicate Concentration*
Pilot CEO	0.18***	0.32*	0.16***	-0.02**	0.35***	0.88**	0.38***	-0.04***
	(0.05)	(0.13)	(0.04)	(0.01)	(0.08)	(0.30)	(0.10)	(0.01)
	[0.09,0.28]	[0.07,0.57]	[0.08,0.23]	[-0.03,-0.01]	[0.20,0.51]	[0.30,1.47]	[0.19,0.57]	[-0.06,-0.02]
Key Man Insurance					-0.03	0.170	-0.01	-0.02+
					(0.03)	(0.14)	(0.04)	(0.01)
					[-0.09,0.03]	[-0.11,0.44]	[-0.09,0.07]	[-0.04,0.00]
*Pilot CEO*Key Man Insurance*					0.48***	1.37***	0.39***	0.02
					(0.07)	(0.42)	(0.12)	(0.02)
					[0.34,0.63]	[0.56,2.19]	[0.16,0.61]	[-0.02,0.06]
Lack of Board Independence					0.04	0.50***	0.10*	-0.01
					(0.03)	(0.12)	(0.04)	(0.01)
					[-0.02,0.09]	[0.26,0.74]	[0.02,0.17]	[-0.02,0.01]
*Pilot CEO*Lack of Board Independence*					0.30**	0.99*	0.43**	-0.02
					(0.11)	(0.46)	(0.15)	(0.02)
					[0.07,0.52]	[0.08,1.90]	[0.13,0.73]	[-0.05,0.01]
Age 50-59	-0.18*	0.25	0.08	0.01	-0.07	0.220	0.09	0.01
	(0.08)	(0.22)	(0.07)	(0.01)	(0.06)	(0.25)	(0.08)	(0.01)
Age >=60	-0.25**	0.02	-0.02	0.02+	-0.09	0.160	0.02	0.02
	(0.08)	(0.22)	(0.07)	(0.01)	(0.06)	(0.25)	(0.08)	(0.01)
Female CEO	0.110	0.48*	0.0700	-0.02	0.08	0.36	0.04	-0.02+
	(0.09)	(0.24)	(0.08)	(0.01)	(0.06)	(0.27)	(0.09)	(0.01)
Ln(Tenure)	-0.03	-0.01	0.00	0.000	-0.04**	-0.05	-0.02	0.00
	(0.02)	(0.05)	(0.01)	(0.00)	(0.01)	(0.06)	(0.02)	(0.00)
Overconfidence	-0.04	0.05	0.00	0.00	-0.04+	0.11	-0.02	0.00
	(0.03)	(0.07)	(0.02)	(0.00)	(0.02)	(0.09)	(0.03)	(0.01)
Ln(Facility Amount)	-0.19***	-0.08+	0.04**	-0.02***	-0.12***	-0.07	0.00	-0.01***
	(0.02)	(0.04)	(0.01)	(0.00)	(0.01)	(0.05)	(0.02)	(0.00)
Ln(Maturity)	0.39***	0.85***	0.24***	-0.02***	0.33***	0.98***	0.30***	-0.02***
	(0.02)	(0.06)	(0.02)	(0.00)	(0.02)	(0.07)	(0.03)	(0.00)
Performance Pricing	-0.29***	0.52***	0.84***	0.05***	-0.0100	0.60***	0.83***	0.06***
	(0.02)	(0.07)	(0.03)	(0.00)	(0.02)	(0.08)	(0.04)	(0.00)
Ln(Total Assets)	-0.16***	-0.57***	-0.21***	-0.01***	-0.18***	-0.52***	-0.19***	-0.01***
	(0.01)	(0.04)	(0.01)	(0.00)	(0.01)	(0.05)	(0.02)	(0.00)
Leverage	1.04***	1.98***	0.41***	-0.04**	0.71***	1.94***	0.47***	-0.03*
	(0.08)	(0.22)	(0.05)	(0.01)	(0.07)	(0.26)	(0.06)	(0.01)
Return on Assets	-2.67***	-5.74***	-0.73***	-0.06+	-1.81***	-5.96***	-0.71***	-0.08*
	(0.19)	(0.59)	(0.13)	(0.04)	(0.14)	(0.75)	(0.15)	(0.04)
Operating Cash Flow Volatility	-0.70+	-0.850	-0.73*	-0.04	-0.0400	-0.370	-1.09**	0.040
	(0.37)	(1.00)	(0.30)	(0.07)	(0.29)	(1.17)	(0.38)	(0.08)
Tangibility	-0.15***	-0.43***	-0.08*	0.00	-0.14***	-0.36*	-0.11*	0.010
	(0.04)	(0.12)	(0.04)	(0.01)	(0.03)	(0.14)	(0.05)	(0.01)
MB	-0.02***	-0.03**	-0.01*	0.00	-0.02***	-0.03**	0.00	0.00
	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Credit History	-0.02***	-0.0100	0.00	0.00*	-0.02***	0.00	0.00	0.00
	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Firm Age	-0.06***	-0.33***	-0.07***	0.00	-0.13***	-0.38***	-0.10***	0.00
	(0.02)	(0.05)	(0.01)	(0.00)	(0.02)	(0.06)	(0.02)	(0.00)
Credit Spread	0.54***	0.38*	0.08	-0.01	0.30***	0.340	0.08	-0.02+
	(0.08)	(0.19)	(0.06)	(0.01)	(0.04)	(0.21)	(0.06)	(0.01)
Term Spread	0.29***	0.18*	0.04	0.00	0.15***	0.130	0.05+	0.00
	(0.03)	(0.08)	(0.03)	(0.00)	(0.02)	(0.09)	(0.03)	(0.00)
Intercept	1.11***	-0.280	0.93***	0.29***	5.78***	0.750	1.21***	0.25***
	(0.21)	(0.66)	(0.22)	(0.04)	(0.16)	(0.75)	(0.22)	(0.04)
Industry & Year Fixed Effects	Included	Included	Included	Included	Included	Included	Included	Included
No. of Observations	6,081	6,081	6,081	6,081	4,460	4,460	4,460	4,460
Adjusted R^2/Pseudo R^2	0.515	0.255	0.225	0.110	0.589	0.266	0.213	0.102

+ < .1, * p < .05, ** p < .01, *** p< .001 (two-tailed)

The standard errors reported in parentheses are based on standard errors that are robust to heteroskedasticity. The 95% confidence intervals are reported in square brackets.