FOUNDERS, GOVERNANCE, AND FIRM VALUATION: DOES THE MARKET PERCEIVE PSYCHOLOGICAL OWNERSHIP?

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ABSTRACT
We examine the impact of the governance in entrepreneurial firms at the time of the IPO focusing on market valuation based on whether the founder is still with the company. Using agency theory to explain the governance devices (and their purpose), we probe their impact on firm valuation. We develop hypotheses using concepts from psychological ownership to explain why the devices would differ based on founder status and why the market would value them differently. Consistent with our theorizing, we find that stronger bonding mechanisms have a negative impact on valuation when the founder is still with the organization. We also find that stronger monitoring is associated with higher valuation when the founder is still with the firm. The implications of these findings and several directions for future research are discussed as well.

INTRODUCTION
The development of entrepreneurship as a field of study has generated several interesting research questions. Although most of these questions have been addressed with theories developed in other fields (Busenitz et al. 2003), the entrepreneurial context creates special situations which motivate the adjustment and extension of received theory. One area of inquiry gaining increasing importance is the impact of founders on the organizations they create (Daily & Dalton, 1992; Jayaraman, Khorana, Nelling, & Covin, 2000; Nelson, 2003). Although the topic is gaining in popularity, the knowledge developed to date is rather limited.

Previous research has focused primarily on identifying whether founder-led firms perform significantly better than non-founder-led firms (cf. Daily & Dalton, 1992; Willard et al., 1992; Begley, 1995; Jayaraman et al., 2000). Although Daily & Dalton (1992) and Willard and colleagues (1992) found no significant impact on firm performance, Jayaraman et al. (2000) found that founders have a more positive impact on performance when the firm is smaller and younger. Thus, the impact of founders appears to be more salient in truly entrepreneurial firms (e.g. those which are more nascent).

It may be that founders retain a stronger commitment to their venture and are willing to put in greater amounts of “sweat equity” even if this greater effort is not remunerated financially (Gimeno, Folta, Cooper, & Woo, 1997; Wasserman, 2006). When the success of any new venture is contingent on the capabilities of its founding entrepreneurs, greater effort by those entrepreneurs would seem particularly important for the organization (Baker, Miner, & Eesley, 2003). And while the effort of the entrepreneurs (and in particular founders) will no doubt be important, ensuring that this effort is properly directed will be just as important to the new venture. To this end, the governance of entrepreneurial firms takes on increased importance in light of the impact and motivation of founders (Nelson, 2003).

Interestingly, there have been very few studies examining governance and founders and so we view this work as being important and needed within the field of strategic management in general and entrepreneurship specifically (cf. Wasserman 2006). Nelson’s (2003) seminal study examined founders from an organizational theory perspective to observe the imprint of founders and to tie this into previous organizational theory perspectives. Certo, Covin, Daily, & Dalton (2001) examined the impact of
founders on the level of underpricing experienced by new ventures going through an IPO. More recently, Wasserman (2006) used a stewardship/agency theory perspective to argue why compensation schemes would differ between those new ventures with a founder and those without a founder. He argued that nascent organizations would initially adopt governance which was more consistent with a stewardship view because founders would likely maintain greater psychological ownership (Pierce, Kostova, & Dirks 2001) or attachment to the organization. Later, as the organization matured, he argued that agency controls would take on greater importance. Consistent with his theorizing, he found that compensation levels in founder-backed organizations were lower.

We seek to build off of Wasserman’s study to examine the impact of the governance in entrepreneurial firms at the time of the initial public offering (IPO) particularly focusing on how this governance impacts firm valuation. Using agency theory to explain the governance devices (and the desired intent of those governance devices), we develop hypotheses using concepts from psychological ownership to explain why the impact of the governance devices would differ based on founder status and why the market would value them differently. We test our hypotheses on a sample of IPO firms going through the IPO between 1990-1994. Lastly, we discuss the impact of our results and conclude with additional research questions. In the following section we discuss how agency theory informs our understanding of firm valuation particularly at the time of the IPO as well as the types of normative governance devices proposed to reduce the agency problem.

AGENCY THEORY AND NEW VENTURE VALUATION

Traditional governance research in strategic management has been virtually synonymous with agency theory because it has proven to be a powerful theory to explain the consequences of a separation between ownership and control in an organization. Adam Smith, writing in 1776, was one of the first to recognize the agency problem; he identified the implicit quandary imposed by the separation of ownership and control in that the one in charge of safeguarding another’s property (e.g. a manager) is never as diligent or careful as the owner of that property (Smith 1991). Berle and Means (1932) further bemoaned how the rise of the modern corporation was increasingly leading to an estrangement of entrepreneurs from the business they founded and leading to the use of managers in their stead. Since then, agency theory concepts have been codified to provide an explanation for what is necessary for an agency problem to occur, the mechanisms available to mitigate the agency problem, and the effects of the potential agency problem (Jensen & Meckling, 1976; Williamson, 1988; Eisenhardt, 1989). In particular, Jensen & Meckling (1976) provided a model to show what happens to firm valuation after an entrepreneur cedes partial ownership to other shareholders.

In order for an agency problem to arise, there must be information asymmetry and potentially differing goals between the principal and the agent. As the result of information asymmetry, the agent (who has specific information), may be able to engage in certain behaviors (e.g. acts of opportunism) which benefit him or her at the expense of the principal. For example, agents may purchase excessive perquisites (Jensen and Meckling 1976), or engage in periodic shirking behavior (Kidwell and Bennett 1993), or grow the size of the organization in order to grow the size of their salary (Tosi and Gomez-Mejia 1989), or overdiversify the firm in order to smooth cash flows and reduce employment risk (Amihud and Lev 1981). As a result of these potential problems, principals will seek to avoid an agency problem a priori by 1) monitoring the actions of the agent, 2) aligning the interests of the agent with the principal through incentives, and 3) bonding the agent. Although each of these mechanisms is costly, they should help to restore the performance of the organization to pre-dilution performance levels (Jensen and Meckling 1976; Williamson 1988). Accordingly, the valuation of a firm is affected by the cost of these mechanisms as well as the potential residual losses arising because the mechanisms are not impervious to failure (Walsh & Seward 1990) and because contracts are incomplete and can never pre-specify all contingencies.
The Impact of Agency Mechanisms

As noted above, one of the key mechanisms proposed by agency theorists to ensure that agents act in the interests of shareholders is bonding (Jensen & Meckling, 1976; Lippert & Moore, 1995). A bonding mechanism creates a situation where the agent is tied to the organization typically through financial or contractual means. For example, equity ownership may act as a bond. Once bonded to the organization, the agent is motivated to seek the best interest of the organization because its failure (due to malfeasance, misfeasance, or nonfeasance) would lead to losses for the agent. The bond forces the agent to experience any downside effects of his or her deleterious actions. For example, if an agent were to engage in acts of opportunism, his or her own wealth would be threatened along with that of the shareholders. A bond has the benefit of ensuring that an agent does not engage in reckless short-term behavior with an eye toward opportunistically defecting (Certo, Daily, Cannella, & Dalton, 2003).

Monitoring is intended to reduce the information asymmetry of the principal. By establishing certain reporting structures (i.e. through a board of directors), the principal is able to gather greater information concerning the behavior and performance of the agent (Mitchell, Reid, & Terry 1995). Oftentimes principals such as venture capitalists will interact more often with agents who have received funding when the perceived goal congruence between the two is lower (Sapienza & Gupta 1994). Thus, monitoring reduces the likelihood that an agent will engage in acts of opportunism because the likelihood of being caught increases.

Incentives are the third mechanism used to ensure that the agent acts in the best interests of the principal. Incentives ensure that the agent is properly motivated (cf. Hendry 2002). Typically, incentives provide a potential for gain to the agent so that if the organization prospers, the agent will prosper as well. Incentives also reduce the likelihood that an agent will become excessively risk averse (since too much risk aversion on the part of the agent is detrimental to the principal as well; Certo et al. 2003).

It should be specified that each of the three mechanisms (e.g. monitoring, incentivizing, and bonding) serves a different purpose and their use and effect can differ (Tosi, Brownlee, Silva, & Katz 2003). For example, Sanders (2001) found that an increase in the use of stock options motivated an increase in acquisition activity whereas higher equity ownership dampened this activity. Furthermore, Sanders & Boivie (2004) found that among a sample of internet-based IPO stocks, those with greater top management team ownership and those where the TMT had greater options enjoyed higher market capitalization. Interestingly, Certo, Daily, Cannella, and Dalton, (2003) found that stock options and equity ownership interacted to increase firm valuation at the time of the IPO. Stock options motivate risk-seeking whereas equity ownership promotes a modicum of risk aversion. Together their benefit may be more positive. Thus, the extant governance in a new venture at the time of the IPO can have differing effects on firm valuation. Before going further, it is important for us to provide arguments to explain why founders may be perceived by the market as having psychological ownership toward the ventures they have founded and why this allows us to develop hypotheses concerning the agency mechanisms detailed earlier. Later we develop theory to explain how the market values the governance mechanisms in entrepreneurial ventures at the time of the IPO based on whether the founder is still with the organization.

Founder Effects and Governance Mechanisms

While traditional governance research (particularly in strategic management) has virtually been synonymous with agency theory, governance research in entrepreneurial firms has often focused on the potential limitations of agency theory and the juxtaposition of stewardship theory as a possible alternative (Arthurs and Busenitz 2003). Unfortunately, stewardship theory tends to fail as a theory of governance when examining market valuation issues surrounding the governance mechanisms themselves because stewardship theory presumes goal alignment between the principal and steward a priori. For example, Davis, Schoorman, & Donaldson (1997) write the following: “Stewardship theory defines situations in...
which managers are not motivated by individual goals, but rather are stewards whose motives are aligned with the objectives of their principals” (Davis et al., 1997: 21). If a “steward” is employed by the organization, the agency mechanisms should have little upside benefit to the organization because they should do little to alter the steward’s behavior. And while these stewardship assumptions may be valid in a nascent firm that is not publicly traded and where the founder maintains substantial ownership, a potential principal (e.g. a potential shareholder who is deciding whether or not to invest in an IPO firm) cannot know whether they are valid. Barney (1990) argues that because a principal cannot know whether an “agent” or “steward” is employed, the principal will adopt protective mechanisms before employing the agent/steward (Barney, 1990). Accordingly, even if a “steward” is employed there will be agency mechanisms described above (e.g. bonding, monitoring, and incentives) to protect potential shareholders’ interests once the venture goes through the IPO. Indeed, when venture capitalists invest and get involved in a new venture before it is publicly traded, they establish elaborate contractual controls and protection (cf. Sahlman, 1990).

Although a principal may not know whether an “agent” or “steward” is being employed, the market may observe both who is being employed (e.g. founder or non-founder) and the governance mechanisms employed. By observing the valuation impact of these mechanisms in light of the type of firm (e.g. founder-backed or non-founder-backed), we can begin to unravel the contingent effects of founder-backing in light of the governance in the firm. The importance here is that the market may value the governance devices differently if it is presumed that founders maintain greater psychological ownership. In the following section we discuss more fully the impact of psychological ownership on individuals and how it can be both beneficial and detrimental to the organization. Later we will show how it will interact with the governance devices. We develop hypotheses and then test them on a sample of firms going through their IPO between 1990 and 1994.

**PSYCHOLOGICAL OWNERSHIP**

Psychological ownership is a relatively new construct in management literature that has thus far found its primary application in the employee ownership and organization commitment literature (cf. Pierce and Furo, 1990; Pierce, Rubenfeld, and Morgan, 1991; VandeWalle, Van Dyne, and Kostova, 1995; Pierce et al., 2001; Van Dyne & Pierce, 2004). It is defined by Pierce et al. (1992) as a condition in which an individual thinks and feels that the target or some part of that target of ownership is his or hers. This ownership imparts both perceived rights and felt responsibilities (Pierce et al., 1991; VandeWalle et al., 1995; Pierce et al., 2001). The three general perceived rights associated with ownership are enumerated by Pierce et al., (1991) as: “1) the right to possession of some share of the owned object’s physical being and/or financial value, 2) the right to exercise influence (control) over the owned object, and 3) the right to information about the status of that which is owned.” The felt responsibilities imparted by psychological ownership include the responsibility to protect, care for, nurture, and expend time and energy to advance the cause of the target of ownership (Pierce et al., 2001). Psychological ownership also gives rise to the investment of oneself into the entity or organization. Pierce et al. (2001) write that this investment can take many forms including, “investment of one’s time; ideas; skills; and physical, psychological, and intellectual energies. As a result, the individual may begin to feel that the target of ownership flows from the self” (Pierce et al. 2001: 302). Notice how this conceptualization differs from a stewardship theory perspective in that a steward recognizes and receives utility from his or her implicit subordinance. Entrepreneurship scholars have similarly identified how the entrepreneur’s organization is an extension of the entrepreneur – the venture’s existence and performance is initially wholly reliant on the skills and ability of the entrepreneur (Alvarez and Busenitz, 2001). Interestingly, investment of oneself into an entity or object is greatest when the psychological owner has created the entity or object. As a result, we should expect to see high psychological ownership among entrepreneurs that found their own venture.
Psychological ownership has been conceptualized as an antecedent to organizational commitment (Florkowski, 1987; Klein and Hall, 1988; Pierce et al., 1991; and VandeWalle et al., 1995). This organizational commitment thereafter gives rise to certain positive behaviors that further the cause of the organization. These behaviors are characterized as “extra-role” because they are discretionary and not formally rewarded by the organization (Van Dyne, Cummings, and McLean Parks, 1995; and VandeWalle et al., 1995). Thus, those exhibiting extra-role behaviors are willing to go above and beyond what is required or expected of them even though these behaviors are not financially rewarded. This engagement in extra-role behaviors is consistent with the sweat equity investment that entrepreneurs make in their ventures. Indeed, Gimeno, Folta, Cooper, and Woo (1997) identify the psychic income that entrepreneurs derive from their venture. In three separate field studies of employees, Van Dyne and Pierce (2004) found a positive relationship between psychological ownership and organizational commitment and between psychological ownership.

While psychological ownership is associated with extra-role behaviors, commitment of the individual to the organization, as well as identification with the organization, we suspect that it can also lead to dysfunctional attitudes and behaviors as well. Possessiveness can give rise to attempts to deny others access to the object of ownership (Dittmar, 1992). Furthermore, very high levels of psychological ownership may create resistance to change and an unwillingness to cooperate with others (Dirks, Cummings, and Pierce, 1996) resulting in “turf” battles (Van Dyne and Pierce, 2004). As such, very high levels of psychological ownership on the part of the entrepreneur may create problems in the future. It is important to specify that the amount of financial ownership that an individual possesses may not necessarily translate into a commensurate level of psychological ownership (VandeWalle et al., 1995). Given the potential for overprotectiveness on the part of the entrepreneur, we argue that a founding entrepreneur would be more likely to engage in escalation of commitment (Staw, 1976; 1981) in decisions concerning the venture because he or she would have a stronger felt responsibility and commitment (Staw, Koput, and Barsafe, 1997) toward the venture. In sum, although a modicum of psychological ownership is beneficial and may be vital for new venture survival (because of the liability of newness and need for bricolage activities), excessively high levels of psychological ownership may lead to hypersensitivity on the part of the entrepreneur which could potentially lead to irresolvable conflict between the entrepreneur and other stakeholders.

Interacting Psychological Ownership with Agency Mechanisms

If indeed the market perceives founders as having higher psychological ownership toward the ventures they found, then we should be able to interact founder status with the governance mechanisms to predict the market reaction to those mechanisms. In particular, we should be able to observe how the market values those mechanisms in light of founder backing. It is important to note that although we do not specifically measure the amount of psychological ownership that a founder has, it is not necessary to do so because we are interested in the market’s perception and reaction.

Bonding

As noted earlier, a bond is used to tie the entrepreneur to the organization either through financial or contractual means. However, psychological ownership fulfills this role without the associated costs of the bond. That is, psychological ownership is associated with stronger attachment to the organization as well as an unwillingness to defect (Pierce et al. 2001). If the market believes that there is a stronger psychological attachment and bonding to the organization among founder-backed ventures then any strong bonding mechanisms will be perceived as costly and unmerited. On the other hand, for the IPO without a founder, bonding mechanisms provide stronger insurance for the potential investor that the top management is not seeking an imminent defection through cashing out after raising a sizeable amount of capital.
**H1:** There will be a negative relationship between the use and strength of bonding mechanisms and firm valuation at the time of the IPO among founder-backed ventures.

**Monitoring**

While monitoring mechanisms are important for all organizations to ensure that shareholder interests are protected, we believe that stronger monitoring is even more important in founder-backed organizations. Because high psychological ownership is associated with a potential for overprotectiveness and hypersensitivity as well as a desire to deny access to the object of psychological ownership, potential IPO investors will no doubt be concerned that their interests may be subordinated after investing. For example, if the board seeks to alter the strategic direction of the company against the founder’s wishes, the founder with high psychological ownership may engage in deceit or duplicity to hide the true direction of the company. Interestingly, Kunze (1990) details several instances where such behavior occurred among a group of companies in which he was considering investing. If the market believes that there is a stronger psychological attachment and bonding to the organization among founder-backed ventures then stronger monitoring in these firms will be perceived as beneficial toward protecting investor interests. It will “prove” to the market that outside counsel will be taken into account.

**H2:** There will be a positive relationship between the strength of monitoring mechanisms and firm valuation at the time of the IPO among founder-backed ventures.

**Incentives**

Incentives are utilized both as a way to align an agent’s goals with those of the principal but also as a way to motivate agents to expend greater effort towards those goals. Here again we believe that psychological ownership among founders fulfills much of the role presented by incentives. The psychological owner is implicitly tied to the object of ownership and may see the organization as an extension of himself or herself. As such, the incentives may be perceived by the market as less useful and unnecessarily costly because the entrepreneur will already be motivated to expend effort toward building the organization. Additionally, if the market perceives that psychological ownership will be higher in founder-backed organizations, then any strong financial incentives in these organizations may mean that the level of psychological ownership and concomitant intrinsic motivation among the founder has declined. Accordingly we believe there will be a negative relationship between the strength of incentives in founder-backed IPOs and market valuation.

**H3:** There will be a negative relationship between the strength of incentivizing mechanisms and firm valuation at the time of the IPO among founder-backed ventures.

**METHODOLOGY**

**Sample**

To test the hypotheses, a sample of ventures that had gone through an initial public offering (IPO) between 1990 and 1994 was created. Given that IPO markets experience major fluctuations and assuming that there is no such thing as a “typical” IPO year (Beatty & Zajac 1994), the time frame selected spans multiple years while also omitting the more extreme ends of the IPO market. Our sampling frame was comprised of 422 firms in technology-based industries that went through an IPO in the U.S. market during this timeframe as identified through the *New Issues* database produced by Thomson Financial. The prospectuses of each firm, released just prior to the IPO, provided the information in this study for all independent variables. Firms with fewer than 10 employees were eliminated in order to reduce the number of marginal firms in the sample. Missing data within the prospectuses as well as firms going through a seasoned equity offering (SEO) improperly identified in the *New Issues* database as IPOs as
well as those going through an LBO were further eliminated. We identified all firms which specified a
dependence on the management team in the prospectus and selected those for inclusion in the sample.
This was done to ensure that the governance mechanisms would provide greater market valuation effects.
The final sample consisted of 249 firms with 164 founder-backed and 85 without a founder.

The first step in the analysis was to control for potential endogenous effects concerning the existence
of a founder with the company. Because the decision to defect is not random, failure to control for this
potential endogeneity would potentially bias the results. We used Heckman’s (1979) procedure wherein
we first ran a probit regression to predict founder-backing in the first stage using the following three
variables: the total technical licenses purchased by the company, the total technical licenses sold by the
company, and the startup experience. The residuals from this regression were then used to create a
selection instrument which was thereafter used in all regressions.

Measures

Dependent variable. The dependent variable in our study is market valuation of the IPO (cf.
Welbourne & Andrews, 1996; Nelson, 2003). This is calculated as the closing price on the first day
minus the book price divided by the closing price on the first day. We used the closing price on the first
day to account for any significant trading activity on the first day.

Independent variables. The first independent variable in the study is the existence of a founder with
the company (who is on the board of directors). When the company still had a founder it was coded “1”
or “0” otherwise. We used two different proxy variables for each of the agency mechanisms: bonding,
monitoring, and incentives. The first bonding mechanism variable is the lockup period. Lockups act as a
signal to investors that key employees will remain with the firm for a period of time and further signal
that insiders are not seeking to cash out in advance of imminent bad news (Field & Hanka, 2001). The
lockup period is the amount of time that pre-IPO shareholders agree not to sell their shares after the IPO. We
used the weighted average lockup period which is the weighted average of all lockup agreements (if
there is more than one). The second bonding mechanism is the existence of an employment agreement
used by the firm. Employment agreements typically prevent employees from being fired without just
cause and specify the severance to be paid in the event of dismissal. Also, they often specify that an
individual cannot work for another firm in the same industry for a period of time if he or she leaves the
organization voluntarily. If the firm specified the use of an employment agreement, it was coded “1” or
“0” otherwise.

The first monitoring mechanism variable is the outsider ratio on the board of directors. An
independent board with sufficient outsider representation can provide stronger oversight, dispassionate
guidance, and stronger disciplinary measures (Fama and Jensen, 1983). The outsider ratio was
operationalized as the number of independent outsiders serving on the board of directors divided by the
total number of board members (Johnson, Hoskisson, and Hitt, 1993). The second monitoring
mechanism variable was the percentage of equity ownership by outsiders on the board. Ownership by
outside directors can be a key motivation to provide ongoing oversight in order to protect their interests
(Kosnik, 1990). Outsider equity was operationalized as the total equity owned by independent outsiders
serving on the board of directors divided by the total equity of the new venture.

The first incentive mechanism variable is the use of contingent compensation. Consistent with
previous studies, contingent pay was operationalized as the value of stock options before the IPO logged
to reduce skewness (Certo et al., 2003). The second incentive mechanism is the existence of a bonus
plan for executives. This was operationalized as “1” or “0” otherwise. Each of the agency mechanism
variables were interacted with founder backing to create the hypothesized variables. The main effects
were entered into the regression equation first followed by each individual interaction effect. Continuous
independent variables were centered first before creating the interaction term.
Control variables. In order to control for alternative explanations concerning firm valuation, a number of controls were used in addition to the selection instrument described above. We controlled for the age, size, and pre-IPO performance of the venture because each of these may impact potential investors’ perceptions. Firm age was coded as the number of years since founding. Firm size was coded as the total number of employees (logged to reduce skewness). Firm performance was coded as the return on assets in the year prior to the IPO.

We also sought to control for the technological potential of the organization and did this by coding R&D intensity as the total dollar amount spent on R&D in the year prior to the IPO divided by total assets. We also controlled for patent intensity as well as patent application intensity by dividing the total patents owned by the total employees and the total patent applications by the total employees. We also controlled for board size because greater board size may represent more human and social capital from which to draw.

In order to control for institutional effects, we controlled for the underwriter’s market share because larger underwriters may impact IPO valuation. We controlled for venture capital backing by coding those with venture capital as “1” or “0” otherwise. Additionally, we controlled for IPO intensity by controlling for the total dollar amount of IPOs floated each year.

We further controlled for the incidence of golden parachutes at the time of the IPO (with “1” or “0”) as their existence may boost value by signaling that top management is willing to entertain acquisition offers. We controlled for the total amount of insider equity because this may act as a bond. We also controlled for the total number of shares which are part of the lockup agreement because the more shares which are locked, the less volatile will the stock be after the IPO. Additionally, we controlled for the total number of shares which directors and officers sold off at the time of the IPO. Greater sell-off may have a negative impact on market valuation. Finally, we controlled for industry effects using the 2-digit SIC code of the ventures.

RESULTS

To test for the presence of multicollinearity, we examined the variance inflation factors and found none approaching the commonly accepted threshold of 10 (Neter, Wasserman, and Kutner, 1985). This suggests that multicollinearity was not a problem.

Hypothesis 1 proposed a negative relationship between bonding mechanisms and firm valuation for founder-backed ventures. The interaction for Founder X Lockup period is negative and significant (p < .05) consistent with this hypothesis. Additionally, the interaction for Founder X Employment agreement is also negative and significant (p < .05) giving further confirmation to this hypothesis. Apparently, stronger bonding mechanisms are unnecessary for founder-backed organizations from the market’s perspective and therefore stronger bonding at the time of the IPO for these organizations has a negative relationship with valuation.

Hypothesis 2 proposed a positive relationship between monitoring mechanisms and firm valuation for founder-backed ventures. It was argued that because of the potential for hypersensitivity on the part of founders, it was important for outsiders to maintain active involvement in the governance of the organization. The interaction for Founder X Outsider ratio is positive but not significant. On the other hand, the interaction for Founder X Outsider equity is positive and significant (p < .05) giving some confirmation to this hypothesis.

Hypothesis 3 proposed a negative relationship between the incentive mechanisms and firm valuation for founder-backed ventures. Unfortunately, neither Founder X Contingent compensation nor Founder X
Bonus plan were significantly related to firm valuation. As such, we can reject this hypothesis. See Table 1.

**DISCUSSION AND CONCLUSION**

The results of our paper provide insight into the potential contingent effects of governance structures in new ventures. We have developed our arguments using agency theory as is typically found in strategic management research. However, with the injection of psychological ownership to explain how different agents may react to different governance and the potential market valuation effects, we provide an important extension to extant research. Our results confirm that stronger bonding mechanisms when the founder is still with the organization are generally perceived as unnecessary. Additionally, we find support for the importance of stronger independent monitoring as particularly valuable when the founder is still with the new venture. Although they were focused on a different dependent variable (and thus a different relationship), Certo and colleagues (2001) found that greater board independence was particularly beneficial when a founder was the CEO and enabled the new venture to avoid higher underpricing.

Interestingly, the incentive hypothesis was not significant given that neither of the variables used to test the hypothesis was significant. It should be noted, however, that contingent compensation as a main effect was approaching marginal significance in all of the other models. As such, providing incentives which tie pay to performance may be important for valuation regardless of whether the founder is still with the organization. Also, the possibility always exists that the effects of psychological ownership may be limited to certain types of incentives which we were unable to explore here.

Additionally, while we believe psychological ownership is an interesting and important construct, further construct development clearly needs to occur (especially in the context of its applicability to governance and entrepreneurship research (cf. Pierce et al., 2001). Furthermore, its general absence from entrepreneurship research is puzzling given that many people recognize how founders view their company as “their baby” (cf. Cardon, Zietsma, Saparito, Matherne, Davis, 2005). Accordingly, we see an opportunity for the further examination of psychological ownership within an entrepreneurship context.

While we believe that our paper provides an important extension to extant governance research and extends the insights of both Nelson (2003) and Wasserman (2006), several additional points merit further discussion. First, as Barney (1990) argues, one of the specific challenges with the application of stewardship theory to the context of founder-controlled ventures is that potential investors (e.g., VCs, business angels, stock market investors, etc.) have little evidence upon which to assess *a priori* the relative likelihood the manager/entrepreneur is a steward or an agent. In the presence of these information asymmetries, principals, Barney (1990) argues, will adopt specific governance mechanism to mitigate the potential likelihood the manager/entrepreneur is an agent and therefore acting in their own exclusive self-interest.

Our results remind researchers, however, that there is in some cases a substantial cost to adopting protective mechanisms (here decreased market-based returns), especially where they may not be necessary. Towards this point, we believe the application of a psychological ownership construct to IPO governance research effectively fills the gap left by stewardship theory as it does not assume the manager/entrepreneur will always act in the best interests of capital providers. Specifically, the significant, positive interaction we report between the adoption of monitoring mechanisms and founder status suggests that the *a priori* adoption of monitoring mechanisms reflects the possibility that managers/entrepreneurs may still act exclusively in their own self-interest. That is, stewardship theory typically views stronger monitoring as a means by which “agents” can be controlled but as something generally negative for stewards because their goals are already aligned (cf. Davis et al. 1997). In contrast, we find that stronger monitoring is even more beneficial in founder-backed IPOs. Our results suggest that
a more nuanced approach to the adoption of governance mechanisms based on the relative psychological ownership of founders/non-founders would more fully maximize investment returns.

Towards this point, one of the potential limitations of our study is that we never directly measure psychological ownership but only interpret the contingent market effects of founders and the type of governance as being driven by perceptions of psychological ownership by the market. This tactic is similar to Wasserman’s approach but the difference in our paper is that we reject the use of stewardship theory here given that it presumes implicit subordination by the steward (which we believe lacks systematic descriptive validity), and also because stewardship theory cannot explain the benefit of stronger monitoring in this context.

However, we do not believe the fact that we do not directly measure psychological ownership is a weakness of the article. Rather, the conditions under which we attempt to investigate the effects of psychological ownership are similar to those that would be experienced by outside investors in the overall market. What we mean here is that these investors can not give entrepreneurs/managers a test to measure the extent to which these individuals possess high levels of psychological ownership. Instead, relying on a set of indicators, investors must approximate psychological ownership in order to adopt proper governance mechanisms. Furthermore, our results suggest that principals, in order to maximize these investment returns, would highly value a set of indicators which could be used to assess a priori the likelihood the manager/entrepreneur will act in the best interests of the corporation. To this end, a valuable contribution of future research would be to develop and validate a wider set of indicators which investors could use to approximate psychological ownership.

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Table 1: Results of the Linear Regression Estimating the Relationship between the Independent Variables and Market Valuation

<table>
<thead>
<tr>
<th>DV = Market Valuation</th>
<th>Main Effects</th>
<th>Bond 1</th>
<th>Bond 2</th>
<th>Monitor 1</th>
<th>Monitor 2</th>
<th>Incentive 1</th>
<th>Incentive 2</th>
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N = 249   *** p < .001   ** p < .01   * p < .05   † p < .10   Standardized coefficients reported.