AGENCY COSTS, OWNERSHIP STRUCTURE, AND CORPORATE GOVERNANCE IN PRE-AND POST-IPO FIRMS

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Abstract

Following the approach in Ang, Cole, and Lin (2000), we estimate the impact of CEO ownership on agency costs in pre-IPO firms and again in the post-IPO period when they have become publicly traded companies. We find that CEO ownership is large in both the pre and post-IPO firms. Greater CEO ownership is associated with lower agency costs both before and after the IPO, and CEO ownership in these firms seems to dominate all other agency control mechanisms. Board composition and involvement by venture capital firms does not appear to mitigate agency costs.

Keywords: CEO, ownership, IPOs, agency costs

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1. Introduction

There has been considerable research on the effect of agency conflicts on financial decisions, but as Ang, Cole, and Lin (2000), ACL, maintain: "the actual measurement of the principal variable of interest, agency costs, in both absolute and relative terms, has lagged behind" (p. 81). To measure agency costs requires a zero agency-cost firm, where the owner and manager are the same individual(s). ACL utilize a database of small privately held companies to construct a portfolio of zero agency cost firms and find that agency costs are higher when outsiders manage the firm, higher when the number of non-manager shareholders increase, and are lower when management shareholdings are large. Singh and Davidson (2003), SD, extend the ACL analysis to large firms. They find that managerial ownership is positively related to asset utilization but does not deter excessive discretionary expenditures. Further, they show that smaller boards protect shareholders from agency costs but board composition and blockholder ownership characteristics do not.

We extend the work of ACL and SD by examining agency costs in firms that are about to go public and immediately after they do. The basic issue addressed in this paper is: Does going public increase or alleviate the agency problem and how various deterrent mechanisms influence agency costs? Theoretically it could do either. Going public diffuses ownership and further separates ownership from control, and this may increase agency costs. On the other hand, going public introduces market monitoring along with a more strict disclosure regime, as well as necessitates the need to create additional internal monitoring mechanisms such as an independent board of directors. It could, therefore, decrease agency cost.

We study a sample of 293 IPO firms to compare their pre-IPO and post IPO governance characteristics and investigate the impact of going public on agency costs. As in ACL and SD we measure agency costs in terms of both asset utilization and discretionary expenditures. Our results show that CEO ownership is quite large in IPO firms both before and after the IPO. More importantly, CEO ownership is associated with lower agency costs in both the pre- and post-IPO periods. Board composition, leverage, and ownership by blockholders and venture capital firms do not seem to mitigate agency costs.

2. Agency Costs and IPO firms

The concept of the separation of ownership and control was first introduced by Berle and Means (1932). Jensen and Meckling (1976) develop a model comparing firms with no agency costs to those run by professional managers. One of the difficulties of measuring agency costs has been finding zero-agency-cost firms as a point of comparison. ACL proxy the zero-agency cost firm using a sample of small businesses that are privately owned. In this

paper, we propose that IPO firms may provide a somewhat unique laboratory to measure agency costs. In contrast to the ACL sample, the pre-IPO firm is not a pure owner-managed company. As a result, there may be some possibilities for a pre-IPO CEO to extract rent from other stakeholders. In the pre-IPO firm, ownership is not diffused to the degree of a typical public company, and the CEOs motive to extract rent may not be as strong. The post-IPO firm, on the other hand, is a company that has recently become subject to market forces, and ownership has become more dispersed. However, ownership for the recent IPO firm is likely not as dispersed as in the SD sample. By examining agency costs and governance structure in pre- and post-IPO firms, we straddle the research in ACL (with zero-agency cost firms) and in SD who utilize large publicly traded companies. Before the IPO process, these firms are privately owned. While there is some dispersion of ownership, ownership is concentrated in the hands of a relatively small group of investors. Following the IPO, the firm is now publicly traded with greater dispersion of ownership. One could argue that the agency problems for these firms will increase since the firm is no longer privately owned, creating a greater incongruence of interests of managers and owners. However, the IPO process introduces market monitoring that may offset the agency problems attributable to greater ownership dispersion. We can then observe the changes in monitoring mechanisms designed to reduce agency costs that occur for a firm immediately after going public.

A. Management Ownership

Jensen and Meckling's (1976) argue that managerial ownership helps align the interests of managers and shareholders thus yielding a positive relation between managerial ownership and corporate performance. Empirical research shows that the relation between corporate performance and managerial ownership is more complex than illustrated by Jensen and Meckling (Morck, Shleifer, & Vishny, 1988; McConnell & Servaes, 1990 & 1995; Kole, 1995; Short & Keasey, 1999; Barnhart & Rosenstein, 1998). This research has also shown that managerial ownership's effect on firm value may be non-linear.

In terms of direct measures of agency costs, as in ACL and SD, we expect that agency costs will be inversely related to managerial ownership in general and CEO ownership in particular. A related concept is the founder status of the CEO. When founders stay involved in the corporation, there appear to be fewer agency problems (Reeb and Anderson, 2003). IPO firms are often young firms. As a result the founder often remains active and is commonly the CEO of the firm in the immediate post-IPO period.

B. Blockholder Involvement

Blockholders have the incentive and capability to monitor management. Thus, greater ownership of stock by outside blockholders may result in lower agency conflict. Empirical evidence supports this contention (Holderness & Sheehan, 1985; Barclay & Holderness, 1991; Shome & Singh, 1995; Bethel, Liebeskind & Opler, 1998; Allen & Phillips, 2000).

ACL's sample of small firms does not permit the study of the role of blockholders in reducing agency costs. However, SD find that outside blockholders have limited influence in reducing agency costs. Based on the empirical literature, we expect that agency costs will be inversely related to blockholders ownership.

C. Venture Capital Involvement

Venture capital firms invest in companies and take an active interest in their management (Sahlman, 1990). Barry, Muscarella, Peavy, and Vetsuypens (1990) find that venture capital firms hold about one-third of the board seats in companies they sponsor. Bouresli et al (2004) show that venture capital firms impact the board structure, with insiders controlling fewer board seats when there is venture capital involvement.

In other words, venture capital investors are active monitors (Baker & Gompers, 2000). Since venture capital firms are active monitors, we expect a negative relation between venture capital ownership and agency costs.

In addition, we expect an inverse relation between the proportion of the board comprised of venture capital directors and agency costs. Alternately, in the post IPO period, venture capitalists may actually use their position to further their own interests and extract rent from the corporation's other stakeholders. Thus the impact of venture capitalists on agency costs is somewhat ambiguous.

D. Board Size and Composition

Although, Fama and Jensen (1983) argue that board outsiders are the first line of defense in monitoring managers and guarding shareholder interests, empirical evidence to this effect is mixed. Dalton, Daily, Ellstrand, and Johnson (1998) conclude that there is little evidence that board composition influences firm performance.

In their literature survey, Hermalin and Weisbach (2000) reach the same conclusion. In terms of the relation between agency costs and boards, while ACL did not address this issue, SD, however, did not find a significant relation between board composition and agency costs. Despite the mixed empirical evidence, we hypothesize an inverse relation between the proportion of independent outside directors on IPO firm boards and agency costs.

E. Leverage

Jensen and Meckling (1976) point out that debt financing may restrict excessive managerial perquisite consumption. ACL and SD find evidence that agency costs are inversely related to some measures of leverage. Based on this empirical evidence we hypothe-

size that agency costs will be negatively related to the degree of leverage.

3. Data

A. Sample

We obtained our initial sample of IPOs from the SDC database for the 1995-1998. The database lists 3054 IPOs. We first eliminated 203 dual class IPOs, 126 ADRs and ADSs, 36 limited partnerships, 18 spin-offs, and 359 finance, insurance or real estate IPOs. From the remaining 2312 IPOs, we attempted to obtain financial ownership and board data. Due to non-availability of registration and proxy data 1744 firms were eliminated. We eliminated 180 firms not listed, post-IPO, on Compustat, 33 IPOs that were acquired in the first year following IPO and 62 for other missing data. This left 293 IPOs with complete information both before and after the IPO and represents 12.7% of the 2312 corporate IPOs that occurred in this period.

B. Agency Costs

Similar to ACL and SD we use the ratio of annual sales to total assets as our first measure of agency costs. When this ratio is large, it implies that there is a large level of sales for a specific level of assets. On the other hand, if the ratio is low, management has invested in non-productive assets that are not able to generate cash flows. When agency conflicts are higher, we expect firms to have lower asset turnover ratios.

For a second measure of agency costs we utilize selling, general, and administrative expenses, SG&A, standardized by total sales as a proxy for agency cost related to excessive pay and perquisites. When agency costs are high, we expect SG&A to be relatively large. Conversely, when agency costs are low, we expect SG&A expenses to be relatively small.

We designate year 0 as the IPO year. We obtain financial information manually for year – 1 from the registration statements for the 293 IPO firms. We obtain financial information for year 1 from Compustat.

-----Insert Table 1 About Here-----

Table 1 contains information on the IPO firms for year −1 and year 1. We do not analyze year 0 because the firm is private for part of the year and publicly traded for the remainder of the year. The table shows that the asset turnover drops from 1.43 in year –1 to 0.99 in year 1. This change is consistent with an increase in agency costs occurring as these IPO firms become publicly traded. On the other hand, the ratio of SG&A to sales decreases. This change is statistically insignificant with a t-test but is significant with the Wilcoxon Z. If agency costs increase following the IPO, we expect this ratio to increase rather than decrease in the post-IPO period.

C. Ownership Structure

We measure ownership as shares held by the CEO, blockholders (outside and non-venture capital stockholders with 5% or more equity holdings), venture capital firms, and directors and officers as percent of total shares outstanding.

As expected, the sample average CEO ownership drops from 28.2% pre-IPO to 16.9% in the post-IPO period. This difference is significant (at the 0.1% level). Even with the reduction in percentage ownership by the CEO, the average CEO continues to own a large proportion of the firm's stock. Similarly, average ownership by venture capital firms drops from 14.6% to 3.7%, with the change being significant (at 0.1%). However, the blockholder ownership does not change significantly following the IPO.

D. Board of Director Structure

We measure board composition in the traditional manner as in Baysinger and Butler (1985) with one modification. Since venture capital firms are involved with IPO firms, we have added them as a fourth category of directors. So our four director categories are insiders, affiliated outsiders, venture capital, and independent outside directors. We categorize directors as venture capital directors if they are employed by or represent a venture capital firm that has supplied capital to the IPO firm. As shown in Table 1 board characteristics change significantly following the IPO. Board size increases, on average from 4.9 to 6.4 members. So the average board adds approximately 1½ directors when going public. The average number of inside directors falls slightly from 1.85 to 1.75 after the IPO. The number of venture capital directors also falls from an average of 0.98 to 0.67. The largest change is in terms of outside directors, increasing on average from 0.99 to 2.82. In terms of proportional representation, the proportion of inside directors, venture capital directors, and affiliated directors decreases while the proportion of outside directors increases. All of these board changes are statistically significant. In the pre-IPO companies 47.1% of the CEOs are founders while after the IPO this ratio drops to 43.0% (significant at the 5% level).

E. Other Variables

For a levered firm, the fixed commitment to make debt payments may constrain a manager's ability to use cash (Jensen, 1986) in wasteful ventures. We expect a negative relation between the degree of debt financing and managerial agency costs. We measure leverage with the debt to equity ratio. For our sample, the average debt to equity ratio significantly falls from 21.1% in pre-IPO period to 13.8% in the post-IPO period. In our regression models, we control for firm size with the log of total assets. As shown in Table 1, while the average sample firm size as measured by total assets increases from $60 to $170

million from year −1 to year 1 the mean sales revenue increase from $69 to $140 million. These differences are significant (at the 0.1% level). We also control for industry effects with a series of 3-digit level SIC dummy variables.

4. Results

To relate ownership and board characteristics to our measures of agency costs, we estimate models with the asset turnover ratio and ratio of SG&A expense to sales as dependent variables with the independent variables as described above.

A. Agency Costs in Terms of Asset Utilization- Pre IPO

Table 2 contains the regression results with year -1 asset turnover ratio as our first proxy for agency costs as the dependent variable. Independent variables include the percent ownership by the CEO, blockholders and venture capital firms, percent independent outside directors, percent inside directors, a dummy variable taking the value of 1 if the CEO is the founder, leverage, the natural log of assets as a proxy for firm size, and industry dummies (industry dummies coefficient not reported).

-----Insert Table 2 About Here-----

The single variable regressions are models 1-8. The estimated coefficient for CEO ownership is positive and significant (at the 0.1% level) as predicted. In the pre-IPO period higher CEO ownership is associated with lower possible conflict of interest and lower agency costs. Recall that these CEOs have a considerable stake in the financial performance of the firm, and our results suggest that greater ownership by CEOs reduces agency costs in firms about to go public. On the other hand, the coefficients for ownership by outside blockholders and venture capital firms have negative estimated coefficients that are significant (at the 5% and 0.1%, respectively). Ownership by these two groups is not associated with lower agency costs and appears to have the opposite effect[2].

In pre-IPO firms, the estimated coefficients for the percent independent directors and percent venture capital directors are both negative and significant. These results run counter to our predictions in that independent and venture capitalist directors do not seem to be instrumental in lowering agency costs through improving asset quality or utilization[3]. One explanation is that dominant CEOs replace the need for outsider monitoring. In addition, at this point, the firms are still privately owned and outside director monitoring may be unnecessary.

However, the estimated coefficients for the percent of inside directors and the CEO founder dummy variable are positive. In these privately held companies, insiders on the board and a founding CEO improve asset utilization and reduce agency costs. These results are also consistent with the dominant CEO controlling the company and reducing agency costs. The estimated coefficient for leverage is positive but insignificant. The estimated coefficient for the log of assets is negative and significant at the 5% level. Smaller pre-IPO firms have better asset utilization. Regression 9 is a model that includes all of the independent variables. Only the estimated coefficients for CEO ownership and log of assets remain statistically significant. The estimated coefficient for CEO ownership remains positive and significant (at the 1% level), and the estimated coefficient for log of assets is negative (significant at the 0.1% level).

The estimated coefficients for the other independent variables are statistically insignificant in this model. One explanation for the lack of their significance would be that there is multicollinearity in the variables. However, none of the variance inflation factors are above 1.5. An alternate explanation is that since CEOs own such a large proportion of stock in these pre-IPO firms, that CEO control dominates the effect of the other variables in reducing agency costs. Shivdasani and Yermack (1999) find that more powerful CEOs have greater control over the board through selection of directors.

B. Agency Costs in Term of Asset Utilization- Post IPO

Table 3 contains the regression results for the post-IPO firms. The dependent variable is the asset turnover ratio for year 1. We use the post-IPO independent variables that correspond to the pre-IPO independent variables discussed in Table 2.

-----Insert Table 3 About Here-----

Regressions 1-8 are simple regressions with one independent variable included at a time. The estimated coefficient for CEO ownership is positive and significant (at the 0.1% level). Similarly, in regressions 5 and 6 the estimated coefficients for percent inside directors and the CEO founder dummy variables are positive and significant (at the 5% level).

The estimated coefficients for blockholder ownership and percent independent directors are negative and significant (at the 5% and 10% levels, respectively)[4]. The estimated coefficient for firm size is negative as it was pre-IPO. However, the estimated coefficient for leverage is negative and significant. Since the coefficient is negative debt does not appear to mitigate agency costs following the IPO. In regression 9, we include all of the independent variables. Only the estimated coefficients for CEO ownership and percent independent directors are statistically significant. Even after the IPO, CEO ownership remains high, averaging nearly 17% of the sample firms' equity. With such large ownership, the CEOs continue to be a dominant force in reducing agency costs. Board composition, as measured by the percent of independent directors, not only does not produce better asset utilization, but with its negative coefficient seems to result in higher agency costs. When we compare the results for pre-IPO to post-IPO, we find similar results for CEO ownership.

CEOs control a relatively large proportion of the equity before and after the IPO and, larger CEO ownership is associated with a reduced level of agency costs in both periods. Boards composed of a larger proportion of independent directors and/or venture capital directors do not have improved asset utilization. Leverage seems to mitigate the agency costs before the IPO but has no effect (after controlling for other variables) following the IPO. Recall, that leverage ratios drop significantly after the IPO. Our conclusion is that since these CEOs own such a large amount of stock, it is in their own best interests to reduce agency costs. The CEOs in the pre-IPO and post-IPO firms dominate all other agency control mechanisms.

C. Agency Costs in Term of SG&A Expenses – Pre-IPO

The second proxy for agency costs is the ratio of selling, general, and administrative expenses to sales. This ratio for year -1 is the dependent variable in the models in Table 4. The independent variables are the same as in the two earlier tables.

------Insert Table 4 About Here------

Models 1-8 are simple regressions with separate estimated models for each independent variable. Ownership by the CEO has a negative estimated coefficient which is significant (at the 5% level). The implication of these findings is that greater ownership by the CEO is associated with a lower ratio of SG&A to sales, and it, therefore, is associated with a lower level of agency costs. These findings are consistent with our earlier results where we measured agency costs in terms of asset turnover ratio. Prior to going public, ownership is not dispersed to the extent that is typical of most publicly traded corporations, and CEOs in these private firms may not have as much of an opportunity to extract private benefits from minority shareholders. More important, however, the pre-IPO CEOs with such a large percentage ownership in the firm have incentives to economize on resources to convince the market to reward a well-managed company at the time of IPO with higher price. Here, higher pre-IPO ownership by CEO would translate into higher IPO value and potential gains for the CEO. Similarly, the estimated coefficient for the percent of inside directors on the board is negative and significant (at the 0.1% level). Boards of the privately held firms that are dominated by insiders are associated with a lower level of agency costs. It may be that their large ownership stake in the company motivates them to act in shareholder interests. The estimated coefficient for ownership by blockholders is statistically insignificant. The estimated coefficient for percentage ownership by venture capital firms is positive and significant (at the 10% level). These results are not consistent with the prediction that ownership by venture capital firms is associated with lower agency costs. Instead, venture capital firms may be pursuing their own goals and agendas in the pre-IPO firms. Similarly, the estimated coefficient for the percent of independent outsiders on the board is positive and significant (at the 0.05% level)[5]. Regression 9 contains the estimated model with all of independent variables. None of the estimated coefficients are statistically significant.

Overall, these results suggest that after including all of the predictor and the control variables, discretionary expenses are not reduced by CEO ownership nor by the other agency deterrent mechanisms.

D. Agency Costs in Term of SG&A Expenses – Post IPO

We also measure the ratio of SG&A expenses to sales in year 1, following the IPO, and use it as a dependent variable. The independent variables for year 1 are as in the previous tables. These results appear in Table 5.

-----Insert Table 5 About Here-----

Regressions 1-8 are simple regressions with models estimated separately for each independent variable. Only the estimated coefficient for log of assets is significant. In regression 9, we include all independent variables. None of the estimated coefficients are significant.

5. Conclusions

In this paper we examine the extent to which CEO ownership, venture capital involvement, and board of director characteristics influence agency costs before and after IPO firms go public. For our sample firms, CEOs own over 28% of the pre-IPO firms and this ownership seems to dominate all other agency conflict control mechanisms. While average CEO ownership level drops following the IPO, it remains quite high. As a result, CEO ownership is positively related to asset utilization before and after the IPO. Firms having CEOs with higher levels of ownership have lower agency costs. In terms of discretionary expenditures, CEO ownership reduces its level prior to going public but not when the regressions control for other factors. In addition, we do not find this relation post- IPO. In the post IPO period, the CEO may consume more non-pecuniary wealth of the firm, and thus, CEO ownership does not reduce discretionary expenses. Stock ownership by non-insider blockholders as well as by venture capital firms is not associated with better asset utilization or lower discretionary expenses either before or after going public. Board characteristics such as the percentage of outside directors and the percentage of directors representing venture capitalists are not associated with lower agency costs. Our results are, therefore, similar to those in Ang, Cole, and Lin (2000) and Singh and Davidson (2003).

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Footnotes

[1] We also estimated an OLS model with non-CEO inside ownership as the independent variable. In simple regressions, its estimated coefficient is negative and significant at the 0.1% level. However, when we include it and CEO ownership in the same estimated models, multicollinearity becomes a significant problem as the correlation coefficient for CEO ownership and non-CEO inside director ownership is -0.89 (significant at the 0.1% level) in year -1 and is -0.85 (significant at the 0.1% level) in year 1.

[2] The negative relation suggests that venture capital directors do not serve other shareholder interests. The negative relation between blockholder ownership and asset turnover deserves additional attention. First, we tested several non-linear specifications, but this did not provide a suitable explanation. Then we found blockholder ownership to be significantly (at the 0.1% level) and negatively correlated with CEO ownership, director and officer ownership, and CEO founder status. CEO ownership appears to have the strongest impact on agency costs. So when CEOs own large amounts of stock and are founders, blockholders own less stock. We believe that it is not the blockholders causing greater agency costs, but the lower CEO ownership instead.

[3] We expect that in privately held companies independent directors play a very small role in corporate governance. Pre-IPO companies average less than 1 independent director. In our pre-IPO sample, 135 firms (46.1% of the sample) have no independent outside directors. In only 11 firms (3.6% of the sample) independent outsiders constitute a numerical majority on the board.

[4] The signs of these coefficients are not as expected and imply that outside directors do not reduce agency costs in firms that have recently gone public. We tested several things trying to determine the reason for this relation. For example, the percentage of outside directors is not related to the proportion of stock owned by insiders, the CEO, blockholders or venture capital companies. It is unrelated to firm size, leverage or CEO founder status. We attempted

several non-linear specifications, and the relation does not appear to be non-linear. In only 29% of the companies independent outsiders control a numerical majority of board seats. Our conclusion is that these outside directors do not reduce agency costs in newly publicly traded companies. It may be their lack of experience with the company (since most outside director join the company following the IPO), their relatively small numbers on the board, or perhaps these directors are affiliated with management in ways that our categorization procedures do not detect.

[5]As mentioned above, outside directors seem to play a very small role in the pre-IPO company. Nearly half of the pre-IPO companies have no independent directors.

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Appendices

Table 1. Descriptive Statistics and Comparisons of Pre-to-Post IPO

		Year -1	Year 1	t statistic	Wilcoxon Z	
Agency Cost Data	Asset Turnover	1.4314	0.9946	6.61***	8.27***	
Ownership Data	SG&A to Sales	0.7009	0.5379	1.63	2.89**	
	Ownership Percentages:					
	CEO	28.1769%	16.9390%	10.88**	12.08***	
	Blockholder	17.4701%	17.8773%	- 0.32	-1.17	
	Venture Capital	14.5606%	3.7251%	11.05**	9.65***	
	Director & Officer	35.6224%	17.5874%	14.52***	12.07***	
Board Data	Board Size	4.9181	6.3652	-12.99***	-10.64***	
	Director Numbers:					
	Inside	1.85	1.75	1.97*	2.00*	
	Outside	0.99	2.82	-22.00***	-13.46***	
	Venture Capital	0.98	0.67	5.90***	5.59***	
	Affiliated	1.11	1.12	-0.12	-0.13	
	Director Percentages:					
	Inside	45.08%	28.17%	11.37***	10.31***	
	Outside	16.51%	44.33%	-21.88***	-13.69***	
	Venture Capital	17.82%	10.62%	7.55***	-6.98***	
	Affiliated	20.59%	16.88%	7.41***	6.89***	
	CEO Founder	47.10%	43.00%	2.47*	2.45*	
	Venture Capital on Board	47.44%	37.54%	3.86***	3.78***	
Other Data	Leverage	21.067%	13.835%	3.79***	5.27***	
	Total Assets (millions)	$60.19	$170.28	-9.42***	14.39***	
	Sales Revenue	$69.44	$140.11	-11.35***	14.10***	

*** Significant at 0.001 or better, ** Significant at 0.01 or better, * Significant at 0.05 or better

Table 2. Regression Results: Asset Utilization in the Pre-IPO Period

Reg.	Constant	Percentage Ownership CEO	Blockholder	Venture-Capital	Percent Outside Directors	Percent Inside Director	CEO- Founr-O	Leverage	Log of Assets	18 Industry Variables	Adjusted R^2 (F)
1	0.9797 (9.30)***	0.0161 (6.30)***									11.8% (39.66)***
2	1.5711 (15.45)***	---	-0.0078 (-2.25)*								1.4% (5.1)*
3	1.6583 (16.52)***	---	---	-0.0158 (-3.75)***							4.4% (14.09)***
4	1.6300 (15.11)***	---	---	---	-1.2000 (-2.76)**						2.2% (7.63)**
5	0.7601 (5.25)**	---	---	---	---	1.4922 (5.48)***					9.1% (30.06)***
6	1.1722 (10.67)***	---	---	---	---	---	0.5481 (3.43)***				3.6% (11.74)***
7	1.3422 (13.65)***	---	---	---	---	---	---	0.0039 (1.49)			0.4% (2.3)
8	1.8966 (8.58)***	---	---	---	---	---	---	---	-0.1481 (-2.26)*		1.4% (5.12)*
9	2.7231 (6.63)***	0.0092 (2.85)**	0.0007 (0.20)	-0.0028 (-0.58)	-0.4940 (-1.00)	0.4410 (1.19)	0.1800 (1.01)	0.0036 (1.50)	-0.3622 (-5.41)***	a	28.8% (5.62)***

*** Significant at 0.001 or better, ** Significant at 0.01 or better, * Significant at 0.05 or better, † Significant at 0.10 or better

Table 3. Regression Results: Asset Utilization in the Post-IPO Period

Reg.	Constant	Percentage Ownership: CEO	Percentage Ownership: Blockholder	Percentage Ownership: Venture-Capital	Percent Outside Directors	Percent Inside Director	CEO- Four-O	Leverage	Log of Assets	18 Industry Variables	Adjusted R^2 (F)
1	0.7279 (11.66)***	0.0159 (6.68)***									13.0% (44.58)***
2	1.1091 (15.37)***	---	-0.0063 (-2.22)*								1.3% (4.92)*
3	1.0234 (18.40)***	---	---	-0.0074 (-1.25)							0.2% (1.57)
4	1.2301 (8.54)***	---	---	---	-0.5282 (-1.74)†						0.7% (3.02)†
5	0.7491 (6.27)***	---	---	---	---	0.8774 (2.28)*					1.4% (5.22)*
6	0.9070 (13.43)***	---	---	---	---	---	0.2071 (2.01)*				1.0% (4.02)*
7	1.0542 (17.56)***	---	---	---	---	---	---	-0.0045 (-1.96)†			1.0% (3.85)†
8	1.3582 (6.59)***	---	---	---	---	---	---	---	-0.0816 (-1.81)†		0.8% (3.28)†
9	2.0657 (6.11)***	0.0127 (4.58)***	-0.0005 (0.20)	-0.0009 (-0.16)	-0.4711 (-1.68)†	-0.0199 (-0.05)	-0.0065 (-0.07)	-0.0032 (-1.37)	-0.1181 -2.14	a	35.6% (7.12)***

*** Significant at 0.001 or better, ** Significant at 0.01 or better, * Significant at 0.05 or better, † Significant at 0.10 or better

Table 4. Regression Results: Discretionary Expenditures in the Pre-IPO Period

Reg.	Constant	Percentage Ownership: CEO	Percentage Ownership: Blockholder	Percentage Ownership: Venture-Capital	Percent Outside Directors	Percent Inside Director	CEO- Four-O	Leverage	Log of Assets	18 Industry Variables	Adjusted R^2 (F)
1	0.9480 (6.52)***	-0.0084 (-2.45)*									1.8% (6.02)*
2	0.6401 (4.89)***	---	0.0035 (0.79)								0.0% (0.62)
3	0.5652 (4.32)***	---	---	0.0099 (1.81)†							0.8% (3.29)†
4	0.5124 (3.71)***	---	---	---	1.1700 (2.05)*						1.2% (4.19)*
5	1.2755 (6.55)***	---	---	---	---	-1.2433 (-3.49)***					3.9% (12.17)***
6	0.7704 (5.32)***	---	---	---	---	---	-0.1511 (-0.72)				0.2% (0.41)
7	0.7852 (6.03)***	---	---	---	---	---	---	-0.0039 (-1.08)			0.1% (1.16)
8	1.3411 (4.48)***	---	---	---	---	---	---	---	-0.2000 (2.29)*		1.5% (5.25)*
9	1.0313 (1.58)	-0.0027 (-0.56)	-0.0013 (-0.18)	0.0692 (0.09)	0.0692 (0.09)	-0.8181 (-1.51)	0.1161 (0.49)	-0.0006 (-0.16)	-0.0564 (-0.54)	a	5.9% (1.65)*

*** Significant at 0.001 or better, ** Significant at 0.01 or better, * Significant at 0.05 or better, † Significant at 0.10 or better

Table 5. Regression Results: Discretionary Expenditures in the Post-IPO Period

Reg.	Constant	Percentage Ownership: CEO	Percentage Ownership: Blockholder	Percentage Ownership: Venture-Capital	Percent Outside Directors	Percent Inside Directors	CEO- Found-O	Leverage	Log of Assets	18 Industry Variables	Adjusted R^2 (F)
1	0.8700 (4.10)***	-0.0102 (-1.30)									0.2% (1.68)
2	0.6333 (2.84)**	---	0.0035 (0.40)								-0.3% (0.16)
3	0.6632 (3.87)***	---	---	0.0091 (0.49)							-0.3% (0.24)
4	0.6271 (1.40)	---	---	---	1.1554 (0.16)						-0.3% (0.03)
5	0.8380 (2.35)*	---	---	---	---	-0.5020 (-0.42)					-0.3% (0.18)
6	0.5800 (2.75)**	---	---	---	---	---	0.2640 (0.83)				-0.1% (0.68)
7	0.7585 (4.05)***	---	---	---	---	---	---	-0.0043 (-0.61)			-0.2% (0.37)
8	2.8583 (4.51)***	---	---	---	---	---	---	---	-0.4852 (-3.52)***		3.8% (12.35)***
9	1.5165 (1.21)	-0.0077 (-0.73)	0.0034 (0.33)	-0.0029 (-0.14)	-0.0428 (-0.04)	-0.8343 (-0.59)	0.5822 (1.58)	0.0063 (0.72)	-0.2822 (-1.35)	a	-0.0428 (1.32)

** Significant at 0.001 or better, ** Significant at 0.01 or better, * Significant at 0.05 or better, † Significant at 0.10 or better