The Effects of Equity Ownership and Compensation on Executive Departure

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Building on the work of Coles, Lemmon, Naveen (2003), this study examines the executive departure of CEOs and other executives during periods of private equity ownership and public equity ownership. I find that executive departure is significantly more likely during periods of private ownership than during periods of public ownership. However, this effect is limited to non-CEOs. I also find that the level of variable compensation paid to executives impacts executive tenure. Specifically, larger bonuses are associated with a decreased probability of departure the following year. This is the case for CEOs as well as other executives.

INTRODUCTION

Privately held firms are generally less visible than their counterparts in the public sector. However, their impact on the overall economy is non-trivial. While we do not know the total value of all private firms in existence, what data is available suggests that private firms are a significant component of the economy. Forbes' most recent survey of privately traded firms provided summary data for 441 firms. These 441 firms alone reportedly earned over $1.8 trillion dollars in revenue in 2007 and had 6.2 million employees. Furthermore, every one of these firms had at least $1 billion in revenue in 2008 (Forbes 2008). According to Cole and Mehran (2008), fewer than 10,000 out of more than five million U.S. corporations and 35 million U.S. business are publicly traded. It is true that publicly traded firms tend to be much larger than privately held firms, however, privately traded firms represent a critical component of the economy. Indeed, according to the U.S. Small Business Administration, "private firms account for half of U.S. private sector employment and 60% to 80% of net job growth (Cole and Mehran 2008). Yet, while these firms represent a large sector of the economy, academic research on privately held firms is nearly non-existent.

The goal of many small firms has traditionally been to achieve public status. Publicly traded firms may have access to greater amounts of capital. However, in recent times, some managers have made the claim that the private sector is now superior to the public sector, especially after the passing of the Sarbanes-Oxley act. In the private sector, firms are subject to less regulatory scrutiny and fewer accounting regulations. Furthermore, executives in privately held firms are likely to face less myopic investors (Cole et al. 2003, Stein, 1998, 1999 and Coles and Suay, 2001). In support of this notion, in a sample of firms that go private from 1998 to May 2005, Engel Hayes and Wang find that the frequency of going-private transactions is increasing.

From the standpoint of the executive, in weighting employment options, facing fewer regulatory concerns and interacting with investors having a longer expectations horizon seems attractive. Executives in privately owned firms receive less total compensation, and less equity based compensation than their

public counterparts (Ames 2010). However, little is known about the volatility of executive tenure itself in private firms. To date, only one study had addressed this issue, and documented no significant difference (Coles et al. 2003). This study compares the departure frequency of the top five executives in privately owned firms with the departure frequency of the top five executives in the same firms during periods of public ownership.

DATA COLLECTION

Firms with outstanding public debt are required to file a 10-k each year with the Securities and Exchange Commision (SEC), even if their equity is privately held. However, firms with outstanding public debt and privately owned equity are relatively uncommon and not readily identifiable through databases such as Compustat or CRSP. However, by examining the item 5 of approximately 4,100 10-k filings and proxy statements of firms listed in the Compustat database with at least one year without a stock price and with at least one million in debt, I was able to identify firms that had either gone public or gone private while maintaining public debt, and thus continued to file with the SEC in both periods of public and private ownership. In all, I identified 337 firm year observations from 43 unique firms whose executive tenure data is available through mandatory filings for the period 1991 through 2007 (179 firm year observations during periods of private ownership and 158 firm year observations during periods of public ownership). Because each 10-K is required to report the names and titles of the five highest ranking executives for each year, I was able to collect a total of 1,447 observations of executive specific information (800 executive specific observations during periods of private ownership and a total of 647 observations during periods of public ownership) after excluding observations for partial years of employment.

Empirical Results

Table 1 provides an overview of the sample selection described in the previous section. Table 2 shows the descriptive statistics for relevant variables. Table 3 contains the primary results. Table 4 contains some follow-up tests.

TABLE 1
SAMPLE DESCRIPTION

Initial sample: 4,100 SEC filings
Number of filings belonging to firms that went public or private while maintaining public debt:
337 firm year observations obtained from SEC filings
Number of public firm years:
158 public firm years
Number of executive specific observations during public years:
667 executive specific observations*
Number of private firm years:
179 private firm years
Number of executive specific observations during private years:
801 executive specific observations*
Number of unique executives in total sample:
422

*The Securities and Exchange Commission (SEC) requires that filing corporations include the name and title(s) of the five highest ranking employees by compensation. As a result, the number of executive specific observations is approximately five times larger than the number of firm year observations. Partial years of employment were excluded from the final sample.

Table 2 contains some of the descriptive statistics. The most striking differences between periods of private ownership and public ownership are the size differences (mean of 659.31 and 25,673.7 respectively) and the performance differences (mean of -4.16 and 153.58). This is consistent with the commonly held view that public firms are, on average, much larger than privately owned firms.

TABLE 2
DESCRIPTIVE STATISTICS OF FIRMS DURING PERIODS OF PRIVATE AND PUBLIC EQUITY (IN 000s)

	Private Equity Descriptive Statistics			
n=800	Total Comp	Bonus	Assets	Net Income
Mean	760.04	126.16	659.31	-4.16
Stdev	7672	406.87	1,125.83	67.76
Q3	479.08	135	536.48	11.42
Median	318.83	67.5	358.15	0.29
Q1	213.75	0	203.2	-26.56
	Public Equity Descriptive Statistics			
n=647	Total Comp	Bonus	Assets	Net Income
Mean	535.52	189.8	25,673.7	153.58
Stdev	952.43	582.76	98,009.92	411.93
Q3	531.48	175	1,834.79	136.52
Median	338.71	81.15	82.44	1.77
Q1	217.9	20	4.47	-1.3

In order to measure the effect of equity ownership on the likelihood of executive departure, I employ a binary logistic regression analysis. This analysis is appropriate considering the following: a departure from the firm is a discrete event. To capture this event, I created the variable *Lst_Yr*, with is an indicator variable equal to 1 in the final full year of employment for an executive, and 0 otherwise. As independent variables, I included the indicator variable *Private*, equal to 1 during periods of private ownership for the firm and 0 otherwise. In addition, I included the indicator variable *CEO*, equal to 1 if the executive held the title 'Chief Executive Officer' during the relevant year. I also included the interaction of *Private* and *CEO*, and the log of assets and return on assets to control for firm size and performance. The log of total compensation for each executive is also captured in the variable *LogTotComp.* The results are found in Table 3. In these results, the parameter estimate can be interpreted as a percentage increase or decrease in the probability of the discreet event occurring. In this case, the discrete event is leaving the company in the following year. *Private* is a significant predictor here, with a coefficient of .322 (Wald=4.21, p-value <.05). This means executives in private firms are 32.2% more likely to depart the following year, *ceteris paribus*, than are executives in public firms. However, this effect does not hold for CEOs. The interaction *CEO*Private* does not load significantly (Wald=.02, p-value >.8). In this specification, the log of total compensation is a significant predictor of executive turnover (Wald=.005, p-value >.9). Based on these results, CEOs are no more or less likely to depart during periods of private ownership. However, other high ranking executives are more likely to depart during periods of private ownership than during periods of public ownership.

TABLE 3
PRIMARY LOGISTIC REGRESSION

Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1258.262	.005	.009

Dependent Variable: *LST_YR*

Variables in the Equation

N=1,447	B	S.E.	Wald	df	Sig.	Exp(B)
Private	.322	.157	4.210	1	.040	1.379
CEO	-.212	.298	.505	1	.478	.809
*Private*CEO*	-.058	.408	.020	1	.887	.944
LogTotComp	.006	.078	.005	1	.943	1.006
ROA	-.191	.457	.174	1	.677	.826
Log(assets)	-.055	.051	1.151	1	.283	.946
Constant	-1.435	.474	9.176	1	.002	.238

However, compensation can also be measured in parts. Compensation can be broken into variable compensation, such as bonuses and equity compensation, and non-variable compensation, such as salary. While the level of total compensation may not significantly predict a departure, the variable portion of compensation may. Table 4 contains the results of the test of variable compensation as a predictor in executive turnover. In this specification, some of the previously insignificant control variables are excluded to avoid overcontrolling. The log of bonus compensation (*LogBonus)* is indeed statistically significant, with higher levels of bonuses predicting a lower likelihood of departure (Wald=8.59, p-value $< .01$)[1].

TABLE 4
FOLLOW-UP MODEL

Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1271.496	.011	.018

Dependent Variable: *LST_YR*

Variables in the Equation

N=1,447	B	S.E.	Wald	df	Sig.	Exp(B)
LogBonus	-.084	.029	8.590	1	.003	.919
Private	.319	.155	4.256	1	.039	1.376
CEO	-.133	.291	.209	1	.648	.876
*Private*CEO*	-.122	.408	.090	1	.765	.885
Constant	-1.458	.145	101.514	1	.000	.233

CONCLUSION

This data suggests that the perception that private firms tenure their executives for a greater length of time is false—there is no evidence in these tests to suggest that executive tenure is longer in privately owned firms. In fact, a departure was 32.2% more likely to occur during periods of private ownership. However, CEOs appear to be immune to this effect. In addition, though levels of total compensation do not significantly predict an executive departure, large bonuses significantly reduce the likelihood of an executive departure.

END NOTES

1. Including ROA and the log of total assets as control variables does not significantly alter inferences using directional hypotheses.

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