THE SHORT-TERM EFFECT OF PRE IPO EARNINGS MANAGEMENT ON POST IPO OWNERSHIP STRUCTURE

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ABSTRACT

The purpose of this study is to investigate whether IPO firms engage in earnings management before IPO to increase institutional ownerships after IPO. Using a sample of 302 IPO's, we find that IPO firms with high discretionary accruals, a measure of aggressive earnings managements, have greater institutional ownerships one quarter after IPO than IPO firms with low discretionary accruals. This result holds after controlling for other influencing factors such as initial offer price, underwriter reputation, and offer fraction. This result is robust across different testing methods.

1. INTRODUCTION

Benefits from institutional ownerships to public firms have been well documented in previous studies on institutional ownerships. The benefits range from positive operational/market performance (Nofsinger & Sias (1999), and Dennis & Strickland (2002)) to higher R & D spending (Baysinger et. al. (1991)). Thus, ownership structure may be one of the most important considerations in firms' IPO decisions as suggested by Booth et. al. (1996), and Mello et. al. (1998).

One possible way to attract institutional investors at IPO is to offer high asking prices because institutional investors avoid investing in low-price stocks, which is evidenced in Falkenstein (1996) and Gompers and Metrick (2001). On the other hand, many studies on earnings managements by IPO firms find that IPO firms engage in aggressive earnings managements (i.e., income-increasing activities) before IPO in order to increase the offer price (e.g. Schipper (1989); Chaney and Lewis (1995); Teoh et al. (1998a & 1998b); Ducharme et al. (2001)). Therefore, there may be a linkage between earnings managements before IPO and presence of institutional investors after IPO, which may not last long due to the market efficiency.

The purpose of this study is to investigate the above-addressed linkage between pre IPO earnings managements and post IPO institutional ownerships over short term. It is hypothesized that IPO firms with aggressive earnings managements have greater institutional ownerships over a short time period after IPO's than IPO firms without aggressive earnings managements do.

The remainder of this paper is organized as follows. First, a hypothesis is developed through a review of previous literatures and logical reasoning. Then, sample selection and measurement of variables are described. The empirical tests and their results are followed. In the final section, conclusions are addressed

2. HYPOTHESIS DEVELOPMENT

Benefits of institutional ownerships to public firms are diverse. For example, the institutional ownership is positively related to the benefits of policing firms (Clyde 1997). Stoughton & Zechner (1998) and Sun et. al. (2008) suggest that institutional investors may provide the monitoring function to improve IPO firms' performance after IPO's. Field and Lowry (2009) find that IPO's with greater institutional ownerships outperform those with smaller institutional ownerships. But institutional ownerships vary across firm and offer characteristics such as underwriter reputation, offer size, earnings, firm age, and involvement of venture capitalists. Baysinger et al. (1991) find that the institutional ownership has positive impact on corporate R&D spending. Moreover, higher institutional ownership can avoid higher transaction cost imposed by individual investors (McInish and Wood (1992)). IPO firms with more institutional investors experience lower mortality rates than the others (Fernando et al. (2004)). Ke and Ramalingegowda (2005) provide evidence that transient institutional investors (i.e., those actively trading to maximize short term profits) trade to exploit the post-earnings announcement drift and hence improve the market efficiency.

Because of these benefits associated with institutional ownership, IPO firms may have strong incentives to attract institutional investors at IPO's. And hence a strong presence of institutional investors after IPO would be an important consideration in the firm's decision on selection of offer prices at IPO. To attract more institutional investors, IPO firms would select the highest offer price amongst available because institutional investors tend to avoid lower-priced stocks and invest more in higher-priced stocks (Falkenstein (1996) and Gompers and Metrick (2001)). Fernando et al. (2004) find empirical results supporting this argument: i.e., they find that post-IPO institutional ownership increases monotonically with the chosen IPO price level.

Two possible ways to increase offer prices at IPO are readily available to IPO firms. The first is to reduce the number of shares outstanding through acquisitions of treasury stocks and/or reverse stock splits. The other way is to adopt aggressive earning managements that increase earnings, which, in turn, increase the offer price. But the aggressive earnings management can be an effective means of increasing offer prices only if there is a significant information asymmetry between stock issuing firms and investors. It is because intelligent and sophisticate investors like institutional investors would not be fooled by inflated earnings by IPO firms if and when they have a full access to information about IPO firms as IPO firms do. In fact, there is significant information asymmetry between IPO firms and investors at IPO's because IPO firms are private before IPO and hence there is not sufficient information about the firms available to general investment public until after IPO's. Quite a few studies on IPO find that IPO firms do engage in earnings managements before IPO's to take advantage of this information asymmetry. Chaney & Lewis (1995) show that earnings management affects firm value when value-maximizing managers and investors are asymmetrically informed. Teoh et. al. (1998) also suggest that IPO firms opportunistically inflate earnings to influence the offer price. Friedlan (1994) show that IPO firms make income-increasing discretionary accruals in financial statements released before IPO to affect offer prices because financial statement information is useful in valuing IPO shares without existence of market-determined prices for IPO shares until after IPO. Even established public firms do manage earnings aggressively to push up their offer prices, thereby leading to decease in the degree of under-pricing (Kim and Park (2005)).

Thus, IPO firms may engage in aggressive earnings management to increase offer prices and hence increase institutional ownerships because it is doable and beneficial to IPO firms. But it is open question whether the increased institutional ownerships by aggressive earnings managements will sustain over long term. Since the information asymmetry between IPO firms and investors/shareholders will eventually disappear over long term period after IPO's, market prices of IPO shares and hence the institutional ownership may decrease over long term as results of market corrections for inflated earnings by aggressive earnings managements. On the other hand, the institutional ownerships could increase if the IPO firms' performance improves by quality monitoring services rendered by institutional investors after IPO's, which usually takes a long time period to happen. Therefore, a testable hypothesis would be

Hypothesis: IPO firms with more aggressive earnings managements before IPO's have greater institutional ownerships over a short time period after IPO's than IPO firms with less aggressive earnings managements do.

3. SAMPLE SELECTION AND DATA

Our initial sample of IPO issuers are obtained from the IPO database of Hoovers Incorporated. The sample period extends from April 1997 to December 2002. Several selection criteria are applied sequentially. First, financial institutions and utility firms are excluded because they are in regulated industries and hence usually have different behaviors than unregulated firms do. Also, the sample excludes ADRs because ADRs are subject not only to US regulations but also to regulations of foreign country where their base stocks are listed and traded. Firms with offer price less than one dollar (penny stocks) and firms with offer size less than one million dollars are excluded. It is because institutional investors, in general, do not invest in penny stocks and small offers. Finally, relevant data availability in COMPUSTAT data files over the period of six years surrounding each IPO (i.e., t= [-2, 0, 3]) is required. These selection criteria yield the initial sample of 302 IPO issuers.

4. MEASUREMENTS OF VARIABLES

The earnings management is measured by discretionary accruals which are differences between total accruals and the expected benchmark accruals (nondiscretionary accruals). The nondiscretionary accruals are industry wide accruals, varying across firm and industry characteristics, while discretionary accruals are firm specific accruals. Cross-sectional modified Jones model was used to estimate discretionary accruals of each IPO firm (Jones, 1991; Dechow et al., 1995; Teoh et al., 1998a).¹

¹ Cross-sectional method is used because a time series approach is not possible for IPO's. The cross-sectional approach has an additional advantage in that it incorporates changes in accruals resulting from changes in economic conditions for the industry as a whole. Since the cross-sectional regression is re-estimated each year, any changes in economic conditions affecting expected accruals in a particular year are filtered out. Moreover, the common practice by underwriters of comparing market prices and financial information of similar firms for pricing IPO shares also evidence the importance of controlling for the effect of industry-wide economic conditions on accruals to get discretionary accruals of individual firms.

For each IPO firm, we use at least ten industry-matched firms with the same three-digit SIC code. If we are unable to find ten industry-matched firms with the same three-digit SIC code, we use industry-matched firms with the same two-digit SIC code. For each IPO firm j, we run the following cross-sectional regression model:

$$TAC_{iy}/TA_{iy-1} = \alpha_{0j}[1/TA_{iy-1}] + \alpha_{1j}[(\Delta REV_{iy} - \Delta REC_{iy})/TA_{iy-1}] + \alpha_{2j}[PPE_{iy}/TA_{iy-1}] + \varepsilon_{iy} \quad (1)$$

Where,

TAC_{iy} = total accruals (net income before extraordinary items minus cash flow from

operations) in year y for the ith firm in the industry group matched with offering firm j.

- TA_{iy} = total assets in year y for the ith firm in the industry group matched with offering firm j.
- ΔREV_{iy} = change in revenues in year y for the ith firm in the industry group matched with offering firm j.
- ΔREC_{iy} = change in accounts receivable in year y for the ith firm in the industry group matched with offering firm j.
- PPE_{iy} = property, plant, and equipment in year y for the ith firm in the industry group matched with offering firm j.

Using estimated coefficients from regression model (1), discretionary accruals (DAC) for the issuing firm j in year y are then estimated by subtracting nondiscretionary accruals (NAC) from total accruals (TAC) as follows:

$$DAC_{jy} = TAC_{jy} - NAC_{jy}$$
$$= [TAC_{jy}/TA_{jy-1}] - \alpha_{0j} [1/TA_{jy-1}] - \alpha_{1j} [(\Delta REV_{jy} - \Delta REC_{jy})/TA_{jy-1}]$$
$$- \alpha_{2j} [PPE_{jy}/TA_{jy-1}]$$

The institutional ownership data are obtained from the 13F filings reported in the database of Thomson One Banker. We measure institutional ownership by 'the percentage of shares owned by all institutional investors' at the end of first quarter after IPO.²

Other variables that are proven to affect institutional ownerships are offer price, offer fraction, and underwriter reputation (see Fernando et. al. (2004) and Field & Lowry (2009)). These variables are used in sample description and regression analyses as control variables. Theses variables are measured as follows:

Offer price (OPRC): initial price at which shares were offered at IPO.

Offer fraction (OFRC): the number of shares offered as a fraction of total number of shares outstanding.

Underwriter Reputation (UWRP): underwriter reputation based on the rankings of Carter and Manaster (1990), and updated according to the information in Jay Ritter's website.

 2 We also used 'the number of institutional owners' as an additional measure of institutional ownership. The results are basically the same.

Table 1 presents descriptive statistics for the above-addressed variables. On average, the IPO firms have about \$879 million in market value after IPO's. Mean (median) value of offer price is \$14.77 (\$14.00), while mean (median) value of institutional ownerships after IPO's is 25.60% (21.00%). Mean (median) of offer fraction is 29.82% (median of 24.35%). The sample firms appear to choose highly reputed underwriters with mean (median) rank of 8.15 (9.10) out of 10 point scale. Discretionary accruals (DAC), the measure of earnings management, has mean value of -0.128 and median of -0.057.

Variables	Mean	Standard Deviation	Percentiles					
			5%	25%	50%	75%	95%	
Offer price (\$)	14.77	7.37	7.00	11.00	14.00	17.50	24.00	
Offer fraction	29.82	20.49	10.51	17.62	24.35	33.33	100.00	
(%)								
Underwriter	8.15	1.51	5.10	8.10	9.10	9.10	9.10	
Reputation								
Institutional	25.60	18.50	5.00	13.00	21.00	32.00	69.00	
Ownership (%)								
Discretionary			-0.545	-0.251	-0.057			
Accruals	-0.128	0.321				0.056	0.223	

<Table 1> Descriptive Statistics for Selected Variables

Offer price (OPRC): initial price at which shares were offered at IPO.

Offer fraction (OFRC): the number of shares offered as a fraction of total number of shares outstanding.

Underwriter Reputation (UWRP): underwriter reputation based on the rankings of

Carter and Manaster (1990), and updated according to the information in Jay Ritter's website.

Institutional ownership (INOS): percentage of shares owned by all institutional investors after IPO.

Discretionary accruals (DAC): difference between total accruals and nondiscretionary accruals

5. EMPIRICAL TESTS AND RESULTS

5.1 Univariate Test

If the discretionary accrual of an IPO firm is in top, middle, or bottom one-third of the distribution of the sample firms' discretionary accruals, the IPO firm is assigned to high-, medium-, or low-earnings management group, respectively. The potential effect of earnings management on post-IPO institutional ownership is, then, examined by comparing institutional ownerships across these three groups.

Comparisons of institutional ownerships across three levels of earnings managements (high, medium and low) at the end of the first quarter after IPO's along with the corresponding test statistics and p-values are presented in Table 2. Mean (median) institutional ownerships are 28.6% (24%), 25.8% (23%) and 22.3% (18%) for the high-, medium-, and low-earnings management

group, respectively. This indicates that more aggressive earnings management is related to higher post-IPO institutional ownership. For overall comparison, Kruskal-Wallis χ^2 statistic of 6.335 indicates that there are statistically significant differences in institutional ownerships across earnings management levels (α <0.05).

Pair-wise comparisons along with the corresponding Wilcoxon z-statistics for pair-wise comparisons along with the corresponding p-values shown in Table 2 suggest that IPO firms in the high-earnings management group have greater institutional ownerships than those in the low-earnings managements (24% vs. 18%). And the difference is statistically significant (α <0.05). Also, a statistically significant difference in institutional ownerships also exists between medium- and low- earnings management groups (α <0.05). However, there is no statistically significant difference in institutional ownerships of IPO firms in the high- and medium-earnings management groups. In short, post-IPO institutional ownerships of IPO firms in the high- and medium-earnings management. Since discretionary accruals are measures of aggressive earnings managements, these results support our hypothesis that IPO firms with more aggressive earnings managements before IPO's have greater institutional ownerships after IPO's than the firms with less aggressive earnings managements do.

Pre-IPO Earnings	Mean	Std	Min	25%	50%	75%	Max
Management (DAC)		Dev					
High	0.286	0.205	0.030	0.130	0.240	0.340	0.900
Medium	0.258	0.171	0.010	0.130	0.230	0.320	1.000
Low	0.223	0.173	0.000	0.140	0.180	0.260	0.980
Overall Comparison: Kruskal-Wallis χ ² statistic (p-value)	6.335 (0.042)**						
Pairwise Comparison: Wilcoxon	High vs. Medium Medium vs. Low High vs. Low			V			
z-statistic (p-value)	0.595 (0	.276)	1.9	99(0.046)*	* 2.2	285 (0.022)**

<table 2=""></table>	Comparisons of Post-IPO Institutional Ownership
	Across Earnings Management Levels

- 1. Sample firms were classified into three groups (High, Medium and Low), based on the magnitude of discretionary accruals (DAC).
- 2. Institutional ownership is defined as the percentage of shares owned by all institutions at the end of first quarter after IPO.
- 3. ***: Significant at $\alpha < 0.01$; **: Significant at $\alpha < 0.05$; *: Significant at $\alpha < 0.10$; Two-tail tests;

5.2 Regression Analyses

Results from the univariate tests ignore potential effects of other variables on institutional ownerships. Fernando et. al. (2004) and Field & Lowry (2009) argue and provide empirical evidence that institutional investments in IPO's are influenced by characteristics of the offer and IPO firms. These factors include offer price, underwriter reputation, and offer fraction. Positive relations between post-IPO institutional ownerships and each of these variables are expected because of the following reasons. Since institutional investors, in general, have stronger working

relationships with high reputation underwriters than with low reputation underwriters for investments in and monitoring of their investee firms, it is more likely that institutional investors invest in IPO firms through high reputation underwriters than through low reputation underwriters, which leads to a positive relationship between institutional ownerships and underwriter reputations. Because institutional investors tend to avoid investments in low price stocks (Falkenstein (1996) and Gompers and Metrick (2001)), it is highly likely that institutional investors invest more in IPO firms with high offer prices than they do in IPO firms with low offer prices, which again leads to a positive relationship between institutional ownerships and offer prices. Institutional investors may invest more in IPO firms with high offer fractions than in IPO firms with low offer fractions, because institutional investors may prefer investments in IPO firms where they can exercise significant influence over the IPO firms' decisions. And they have capacity to do so, while most individual investors may not. Thus, it is reasonable to expect a positive relationship between institutional, a measure of ownership percentage offered at IPO's.

Table 3 shows Pearson correlation (Panel A) and Spearman rank correlation (Panel B) among these variables. As expected, post-IPO institutional ownerships have significantly positive correlations with offer price, underwriter reputation, and offer fraction. More importantly, correlation coefficient between post-IPO institutional ownerships (INOS) and the degree of pre-IPO earnings management (EMGT) are 0.147 from Pearson correlation and 0.106 from Spearman correlation, which are statistically significant at α <0.05 and α <0.10, respectively. The correlation coefficients among some independent variables presented in Table 3 are statistically significant between independent variables presented in Table 3 are statistically significant between independent variables below 0.8 is not likely to present a serious multi-collinearity problem in interpreting regression coefficients. Since the highest correlation coefficient among determining variables of institutional ownership is 0.375, it may not be necessary to exercise extra efforts to control for the potential multi-collinearity problems among independent variables in this study.³

³ We also conducted the procedures suggested by Belsley, Kuh and Welsch (1980) to detect any severe collinearity among variables. The diagnostics result indicates that there is no significant multi-collinearity problem.

<Table 3> Correlation among Variables

	INOS	EMGT	OPRC	UWRP	OFRC
INOS	1.000	0.147**	0.186***	0.167***	0.153***
EMGT		1.000	0.082	-0.085	-0.000
OPRC			1.000	0.317***	-0.109*
UWRP				1.000	-0.172***
OFRC					1.000

Panel A: Pearson Correlation

Panel B: Spearman Correlation

	INOS	EMGT	OPRC	UWRP	OFRC
INOS	1.000	0.106*	0.212***	0.107*	0.333***
EMGT		1.000	0.117**	-0.022	0.033
OPRC			1.000	0.375***	-0.178***
UWRP				1.000	-0.331***
OFRC					1.000

OPRC (Offer Price): initial price at which shares were offered at IPO.

OFRC (Offer Fraction): the number of shares offered as a fraction of total number of shares outstanding after IPO.

UWRP (Underwriter Reputation): underwriter reputation based on the rankings of Carter and Manaster (1990), and updated according to the information in Jay Ritter's website.

INOS (Institutional ownership): percentage of shares owned by all institutional investors after IPO.

EMGT (Earnings Management): Degree of aggressive earnings management measured by discretionary accruals.

***: Significant at α <0.01; **: significant at α <0.05; *: significant at α <0.10;

Effects of offer price, underwriter reputation, and offer fraction on institutional ownerships are examined, again, using the following single regressions.

$INOS_i = \beta_0 + \beta_1 OPRC_i + \epsilon$	(1)
$INOS_i = \beta_0 + \beta_1 UWRP_i + \epsilon$	(2)
$INOS_i = \beta_0 + \beta_1 OFRC_i + \epsilon$	(3)

Where

 $INOS_i$ = institutional ownership, defined as the percentage of shares owned by all institutions at the end of first quarter after IPO,

 $OPRC_i = initial offer price,$

UWRP_i = underwriter reputation for ith firm, measured by the rankings of Carter and Manaster (1990), and updated according to the information in Jay Ritter's

website.

OFRC_i = offer fraction, defined as the number of shares offered divided by total number of shares outstanding after IPO.

Results from regression models (1), (2), and (3) are presented in Table 4. The regression coefficients (t-values) of OPRC, UWRP, and OFRC are 0.002 (1.68), 0.205 (2.94), and 0.138 (2.69), respectively, all of which are statistically significant. These results also indicate that offer

price, underwriter reputation, and offer fraction may affect institutional ownerships. And hence these variables need to be controlled for to measure the net effect of earnings managements on institutional ownerships.

The effect of earnings managements on institutional ownerships without controlling for the other influencing variables is investigated using the following single regression model (Model 1).

 $INOS_{i} = \beta_{0} + \beta_{1}EMGT_{i} + \varepsilon$ (4)

Where

 $INOS_i = institutional$ ownership, defined as the percentage of shares owned by all institutions at the end of first quarter after IPO,

EMGT_i = discretionary accruals in year t-1 (one year before IPO).

Results from the regression model (4) are presented in Table 4. The regression coefficient (t-value) of EMGT is 0.085 (2.57), which is statistically significant at α =0.05. This indicates that degree of aggressive earnings management is significantly positively related to post-IPO institutional ownership, which is consistent with our hypothesis.

As an attempt to investigate if this result holds after controlling for the other influencing variables mentioned above, the following multiple regression model (Model 2) is estimated:

$$INOS_{i} = \beta_{0} + \beta_{1}EMGT_{i} + \beta_{2}OPRC_{i} + \beta_{3}UWRP_{i} + \beta_{4}OFRC_{i} + \varepsilon$$
(5)

Where

EMGT_i = discretionary accruals in year t-1 (one year before IPO),

 $OPRC_i = initial offer price,$

 $UWRP_i$ = underwriter reputation for ith firm, measured by the rankings of Carter and Manaster (1990), and updated according to the information in Jay Ritter's

website,

OFRC_i = offer fraction, defined as the number of shares offered divided by total number of shares outstanding after IPO.

Our hypothesis predicts that β_1 is positive because the IPO firms with more aggressive earnings managements are likely to attract more institutional investors over short term. Results from the regression model (5) are also presented in Table 4. The regression coefficients (the corresponding t-values) of OPRC, UWRP, and OFRC are 0.056 (1.91), 0.019 (2.49), and 0.173 (3.44), respectively. All of these coefficients are statistically significant at α =0.10, α =0.05, α =0.01, respectively, indicating that institutional ownerships are statistically positively related to offer price, underwriter reputation and offer fraction, as expected. These results are consistent with that of Fernando et al. (2004). More importantly, the regression coefficient (its corresponding t-value) of EMGT (β_1) is 0.087 (2.70), which is statistically significant α =0.01 as predicted. This result suggests that the aggressiveness of earnings managements before IPO's is positively related to post-IPO institutional ownerships over the short term period, even after controlling for the other influencing variables such as offer price, underwriter reputation, and offer fraction. This is strong evidence supporting the hypothesis.

<Table 4> Effect of Pre-IPO Earnings Management on Post-IPO Institutional Ownership: Regression Analysis

 $INOS_i = \beta_0 + \beta_1 EMGT_i + \epsilon \quad (Model \ 1)$

 $INOS_i = \beta_0 + \beta_1 OPRC_i + \epsilon \quad (Model \ 1)$

 $INOS_i = \beta_0 + \beta_1 UWRP_i + \epsilon \quad (Model 1)$

 $INOS_i = \beta_0 + \beta_1 OFRC_i + \epsilon$ (Model 1)

$INOS_{i} = \beta_{0} + \beta_{1}EMGT_{i} + \beta_{2}OPRC_{i} + \beta_{3}UWRP_{i} + \beta_{4}OFRC_{i} + \epsilon \quad (Model \ 2)$

Independent	Expected		Multiple					
Variables	Signs		Regression					
			Model 1					
		Coefficient	Coefficient	Coefficient	Coefficient	Coefficient		
		(t-value)	(t-value)	(t-value)	(t-value)	(t-value)		
Intercepts		0.267	0.220	0.089	0.215	-0.089		
_		(23.50)***	(9.25)***	(1.54)	(11.53)***	(1.14)		
EMGT	+	0.085				0.087		
		(2.57)**				(2.70)***		
OPRC	+		0.002			0.056		
			(1.68)*			(1.91)*		
UWRP	+			0.205		0.019		
				(2.94)***		(2.49)**		
OFRC	+				0.138	0.173		
					(2.69)***	(3.44)***		
Adj. R^{2} (%)		1.84	0.60	2.48	2.02	8.82		
F-value		6.63	2.83	8.65	7.21	8.28		
(p-value)		(0.011)**	(0.094)*	(0.004)***	(0.008)***	(0.000)***		

OPRC (Offer Price): initial price at which shares were offered at IPO.

OFRC (Offer Fraction): the number of shares offered as a fraction of total number of shares outstanding.

UWRP (Underwriter Reputation): underwriter reputation based on the rankings of Carter and

Manaster (1990), and updated according to the information in Jay Ritter's website.

INOS (Institutional ownership): percentage of shares owned by all institutional investors after IPO.

EMGT (Earnings Management): Degree of aggressive earnings management measured by discretionary accruals.

***: Significant at $\alpha < 0.01$; **: significant at $\alpha < 0.05$; *: significant at $\alpha < 0.10$.

6. CONCLUSIONS

The purpose of this study is to investigate the effect of pre-IPO earnings management on IPO issuers' post-IPO institutional ownership structure. Due to potential benefits from institutional ownerships to IPO firms, it is expected that IPO firms may adopt aggressive earnings managements to increase IPO offer prices and hence attract more institutional investors. We hypothesize that IPO firms with more aggressive earnings managements before IPO's have greater institutional ownerships over a short time period after IPO's than IPO firms with less aggressive earnings managements do.

Using a sample of 302 IPO firms, we find empirical results supporting our hypothesis. The results show that IPO firms with high level of pre-IPO discretionary accruals (i.e., a measure of aggressive earnings management) have higher institutional ownership, as measured by the percentage of shares owned by all institutional investors at the end of the first quarter after IPO. These results hold even after controlling for the other influencing variables on post-IPO institutional ownerships such as initial offer price, underwriter reputation, and offer fraction. These results are robust across different testing methods.

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