

CFO Resignation in IPO Years, Pre-IPO Earnings Management and Post-IPO Performances: Evidence from Newly-Listed Chinese Companies

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Abstract

Using a sample of newly-listed Chinese firms, we find that almost 30 percent of chief financial officers (CFOs) resign shortly within one year after initial public offerings (IPO). The companies from which the CFOs resign within IPO years tend to experience a decline in operating performances in IPO years. Moreover, these companies are associated with more pre-IPO earnings management and longer length of IPO review period, i.e., the period from the submission of an IPO application to the IPO approved by the government. The results suggest that CFO resignation signals the deterioration of post-IPO performances in a country where IPO is controlled by the government and companies may manipulate pre-IPO earnings to meet the profitability thresholds for IPO set by the government.

Keywords: CFO resignation, earnings management, post-IPO performances, China

1. INTRODUCTION

One purpose of corporate governance is to evaluate agents' performances and terminate poorly-performing management (Banker & Datar, 1989; Shleifer & Vishny, 1997; Gilbson, 2003; DeFond & Hung, 2004). Prior studies show that CEOs or CFOs might be dismissed after the disclosure of accounting irregularities or internal control deficiencies (Desai, Hogan, & Wilkins, 2006; Leone & Liu, 2008; Li, Sun, & Ettredge, 2010), and the terminated CEOs or CFOs are likely to be penalized in the labor market when they seek to be rehired at managerial positions (Efendi, Files, Ouyang, & Swanson, 2013). Therefore, CEOs or CFOs who have private information about the companies' performances may resign before the firms experience negative events or the deterioration of the company has fully reached the financial statements (Mian, 2001; Beams, Boonyanet, Chatraphorn, & Yan, 2013; Dou, 2017). CEO or CFO resignation thus may signal the deterioration of the company.

In this study, we focus on CFO resignation in newly-listed Chinese companies. This issue deserves our attention, because (1) nearly 30 percent of CFOs resign shortly within one year after the companies got listed on the Small and Medium Enterprise (SME) Board or the Growth Enterprise (GE) Board.¹ To the best of our knowledge, the percentage is so high that it is hardly observed in other countries such as the U.S.; (2) China's IPO market is tightly controlled by government authorities. Specifically, all IPOs should be approved by the China Securities Regulatory Commission (CSRC). The government intervention might give rise to bureaucrats' rent seeking incentives (Agrawal & Knoeber, 2001; Faccio, 2006), and political connections can help firms navigate complex IPO process in China (Fan, Wong, & Zhang, 2007; Yang 2013). Moreover, as the CSRC set tough profitability

¹ We focus on the companies listed on the SME Board or the GE Board, because a majority of companies listed on the Main Market are stated-owned enterprises. There are hardly any observations of CFO resignation in IPO years in the SOEs.

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thresholds for IPOs;² the companies may manipulate earnings to meet the listing requirements (Chan & Yuan, 2004). Either political connection or earnings management might result in low-quality listed firms that have poor post-IPO performances (Fan et al., 2007; Kao, Wu, & Yang, 2009). If executive resignation signals the deterioration of the company, we expect that CFO resignation is followed by a decline in poor post-IPO performances. Next, we examine pre-IPO earnings management, given that the firms that aggressively manipulate pre-IPO earnings tend to have disappointing post-IPO performances (e.g., Billings & Lewis-Western, 2015). Thus, the newly-listed companies that experience CFO resignation are expected to have greater pre-IPO earnings management. Furthermore, we test the length of IPO review period, - namely the period from the date of submitting an IPO application to the date of obtaining the approval of IPO. On one hand, an IPO applicant may opportunistically inflated reported earnings, so as to accelerate the IPO review process. On the other hand, it would be difficult for an applicant with lower earnings quality to pass the IPO screening process.³ Specifically, the risk of IPO rejection should be higher; even if the IPO is eventually approved, the review process is expected to be more time-consuming.⁴ The length of IPO review period is uniquely applied to China, and its relationship with CFO resignation is an empirical question.

Using a sample of newly-listed Chinese companies, we find that the companies that have CFO resignation during the IPO years are more likely to report declined profitability in the IPO years. In addition, these companies have more pre-IPO earnings management and longer IPO review period than do the other newly-listed firms. The results support that the newly-listed companies from which their CFOs resign tend to be low-quality IPOs.

This study contributes to the research on executive turnover. Prior studies document that CEOs or CFOs with insider information may resign from the firms where they serve prior to negative events such as a decrease in stock prices (Mian, 2001), auditor's issuance of going concerns opinions (Beams et al., 2013) or class action lawsuits (Dou 2017). We extend the research to IPO firms in developing countries, based on the fact that a significant number of CFOs resign in the IPO years in China. Our study provides evidence that CFO resignation plays a signaling role for deteriorating post-IPO performances. In addition, our study adds the IPO research in emerging markets where there is government intervention and weak investor protection. For example, prior studies show that Chinese companies may engage in earnings management and / or seek political connections to get approvals of IPO application (e.g., Fan et al., 2007; Chen, Lee, & Li, 2008; Aharony, Wang, & Yuan, 2010). We find that pre-IPO earnings manipulation (and the subsequent decline in post-IPO performances) could lead to CFO resignation.

The remainder of the paper is organized as follows. Section II introduces the institutional background about China's IPO market; Section III is about literature review and hypotheses development. In Section IV, we present the research design. The results are reported in Section V and in Section VI, we draw the conclusions.

2. INSTITUTIONAL BACKGROUNDS: IPO APPROVALS IN CHINA

In 1990, China's stock markets were established primarily as a platform for partially privatizing state-owned enterprises (SOEs). Since then, the China's stock markets have been characterized as government intervention. Prior to 2001, China adopted IPO quota system and the quota were allocated among the provinces annually. Although the quota system has been abolished, the IPO market is still tightly controlled by government and all IPO applications should be approved by the China Securities Regulatory Commission (Chen et al., 2008). The central government set tough thresholds of profitability with the aim of allowing capitals to flow to the firms with better performances (Chen & Yuan, 2004). Local governments may support local firms to pass the thresholds by offering preferential treatment in bank loans and taxes, as the promotion of local government officials can be linked to the performances of local economy (Li, 1998).

In the main market, a majority of listed companies are large-scaled partially-privatized SOEs whose political connections can help navigate the complex listing process. In this study, we focus on the Small and Medium Enterprise (SME) Board or the Growth Enterprise (GE) Board where most listed firms are non-SOEs. In 2004 and 2009, the CSRC approved the establishment of the SME Board and the GE Board, respectively. The SME board is a new platform for medium- and small-sized companies to get listed without the lowering listing requirements, whereas the GE Board set lower listing thresholds to allow innovative growth enterprises to raise capitals in stock

² For example, the cumulative net profits for the three consecutive years before IPO should be at least 30 million RMB for companies to be listed on the Main board and the SME board, and the cumulative net profits for the two consecutive years before IPO should be at least 10 million RMB for companies to be listed on the GE board (http://www.szse.cn/main/disclosure/bsgg_front/39753081.shtml)

³ In China, the CRSC's Stock Issuance Examination and Verification Committee determine whether to approve or reject each IPO application. There are accounting professionals in the committee (Yang 2013), and pre-IPO earnings management is likely to be detected.

⁴ As we focus on CFO resignation following IPO, the sample firms all successfully got approvals of IPO application.

exchanges. For example, the firms to be listed on the Main Board and SME Board should report positive net profit in the last 3 consecutive years and the aggregate net profit is no less than RMB 30 million, while the firms to be listed to the GE Board are only required to report positive net profit in the last 2 consecutive years prior to IPO, and accumulated profit is not less than RMB 10 million.⁵ In China, a significant number of CFOs resign from IPO firms listed on the SME Board and the GE Board. For example, approximately 30 percent of our sample IPO firms experience CFO resignation. The percentage is so high that it attracts our interests. We examine the reasons for CFO resignation and compare the post-IPO performances and pre-IPO earnings management between the newly-listed firms that experience CFO resignation and the other newly-listed firms.

3. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Executive turnover is expected to play a governance role, that is, effective corporate governance should enable shareholders' to dismiss poorly-performing executives (DeFond & Hung, 2004). For example, executives may be dismissed after negative events such as financial restatements or accounting irregularities (Desai et al., 2006; Leone & Liu, 2008), auditor resignation (Menon & Williams, 2010) or internal control weakness (Li et al., 2010). The dismissed executives will accordingly be penalized when they search for new positions at the managerial labor market (Desai et al., 2006). Therefore, executives with insider information may have the incentive to "resign before the deterioration of the company has fully reached the financial statements and the public is aware of the problems" (Beams et al., 2013) or before the companies experience negative events such as lawsuits or declined stock prices (Mian, 2001; Dou, 2007). That is, executive resignation could be a warning signal for the deterioration of the company or negative events.

Typically, companies would hire CFOs with "public company experience" to help them set the stage for IPO. CFOs rarely resign shortly after IPO. However, CFO resignation in IPO years is not uncommon in China, which provides an interesting setting for us to investigate the post-IPO performances following CFO resignation. Based on the discussion above, CFOs may anticipate a decline in post-IPO performances and hence resign before the issuance of financial results in IPO years. We thus develop the first hypothesis as follows:

H1: The newly-listed firms that experience CFO resignation are more likely to have a decline in post-IPO profitability than are the other newly-listed firms.

As mentioned before, the CSRC stipulates the IPO thresholds that are primarily based on accounting numbers, thus companies may have the incentive to manipulate earnings so as to pass the screening process (Aharony, Lee, & Wong, 2000). Chen and Yuan (2004) show that non-core items are commonly-used tools for earnings management in China. Aharony et al. (2010) find that Chinese companies that have the purpose of tunneling may manipulate earnings via related-party transactions in pre-IPO periods. Chen et al. (2008) provide evidence that local governments provide subsidies to companies to help them boost reported earnings and circumvent the CSRC's regulations on IPO. Generally, although Chinese regulators have gradually increased the scrutiny of earnings management (Chen & Yuan, 2004), certain companies may still gain IPO approvals through earnings management.

While some companies may boost pre-IPO incomes to pass the IPO screening process and inflate firm valuation, they would experience a decline in post-IPO performances due to the reversals of accruals (e.g. DuCharme, Malatesta, & Sefcik, 2004). For example, Kao, Wu, and Yang (2009) show that IPO firms that report better pre-IPO accounting performances have larger declines in profitability and worse stock performances in post-IPO periods. CFOs are in charge of financial reporting. They should have private information about the extent of pre-IPO earnings manipulation and thus can predict subsequent post-IPO performances. So our second hypothesis is about the relationship between CFO resignation in IPO years and pre-IPO earnings management:

H2: The newly-listed companies that experience CFO resignation have greater pre-IPO earnings management than do the other newly-listed firms.

We also examine the relationship between CFO resignation and the length of IPO review period, which is defined as the period from the submission of an IPO application to the CSRC's approval of the IPO. To the best of our knowledge, we are the first study to adopt this measure which is uniquely applied to China where all IPOs should be approved the governments. The Stock Issuance Examination and Verification Committee (the Committee) under the CSRC is responsible for determining whether to reject or approve individual IPO application. The committee is comprised of 25 members who are "familiar with the business of securities and accounting and other

⁵ <http://www.szse.cn/main/en/ListingatSZSE/ListingRequirements/>

relevant laws, administrative regulations and rules” (CSRC 2006). Yang (2013) show that the firms audited by accounting firms with their partners appointed to the Committee are more likely to pass the IPO screening process. On one hand, the firms may window-dress their financial reports so as to accelerate the IPO review process. On the other hand, opportunistic earnings management is likely to be detected by the accounting professionals in the Committee, thus it would be more difficult for an applicant with lower earnings quality to pass the IPO screening process. In other words, it may take longer time for the Committee to evaluate the company’s performances, e.g., the Committee may ask the company to provide additional materials such as original vouchers if they are skeptical about the credibility of financial statements. Based on the two competing views, we have the third hypothesis:

H3: There is no difference in the length of IPO review period between the newly-listed companies that experience CFO resignation and the other newly-listed firms.

4. RESEARCH DESIGN

4.1 Sample selection

Our initial sample includes the non-financial companies whose IPO applications for listing on the SME Board or the GE Board were approved during 2004 to 2014. Our sample period starts from 2004 because that is the first year that the SME Board is opened in China. We collect the CFO turnover data from the Wind database. The data for the length of IPO review period is manually collected from the website of the CSRC,⁶ which discloses the dates of IPO applications and the dates of IPO approvals.

The financial data are obtained from the China Stock Market and Accounting Research (CSMAR) or Wind databases. The final sample includes 644 unique firms for the analysis of post-IPO performances predicted by H1. We use three years prior to IPO to test pre-IPO earnings management and IPO review periods, which results in 2188 firm-year observations (i.e., 938 unique companies) for testing H2 and H3. The variables definitions are summarized in Appendix I.

4.2 Model specification

4.3 Regression model for post-IPO performance

A company experiencing an earnings decline immediately after the IPO is widely criticized as low-quality IPO in China. We examine whether CFO resignation is positively associated with a decline in operating performances from one year prior to IPO to IPO year. Following Yang (2013), we construct a logistic regression model with the dependent variable *DECLINE* coded 1 if a company’s ROA in the IPO year is lower than that in the previous year and 0 otherwise. The model is expressed as follows:

$$\begin{aligned} Prob(DECLINE) = & \beta_0 + \beta_1 CFO_IPO + \beta_2 SIZE + \beta_3 LEV + \beta_4 CR + \beta_5 GROWTH + \beta_6 ROA \\ & + \beta_7 |DA| + \beta_8 UDWT + \beta_9 EXTRAITEM + \varepsilon \end{aligned} \quad (1)$$

The test variable, *CFO_IPO* is equal to 1 if the CFO of a company resigns in the IPO year and 0 otherwise. We estimate equation (1) using the data of our sample firms in IPO years. If H1 is supported, we predict a positive sign on *CFO_IPO*. We include a number of control variables based on prior studies (Yang, 2013). Firm size (*SIZE*), which is defined as the log of total assets. Leverage (*LEV*) is used as a proxy for debt capacity, defined as total liabilities scaled by total assets. *CR* is the ratio of current assets to current liabilities which reflects a company’s need for liquidity. Sales growth (*GROWTH*), defined as the change in sales deflated by total assets and it is a proxy for growth opportunities. Profitability (*Lagged ROA*), net profit scaled by total assets in prior IPO year captures the effect of profitability. Earnings quality (*Lagged |DA|*), measured by the absolute values of discretionary accruals calculated by modified Jones model and this variable captures the pre-IPO earnings quality. *UNWT* is coded 1 if the underwriter is top 10 largest underwriter firms in China and 0 for otherwise, which captures underwriter reputation. *EXTRAITEM* is defined as the ratio of non-recurring income deflated by total income.

4.4 Regression model for pre-earnings management

We use the modified Jones’ model developed by Dechow, Sloan, and Sweeney (1995) to measure earnings management. The model is specified as follows:

⁶ <http://www.csrc.gov.cn/pub/newsite/>

$$TACC = \alpha_0 + \alpha_1 (\Delta REV - \Delta REC) + \alpha_2 PPE + \varepsilon \quad (2)$$

where, *TACC* is total accruals, i.e., pre-tax income minus net operating cash flow; ΔREV (ΔREC) represents the yearly change in revenues (the yearly change in account receivables); *PPE* denotes property, plant and equipment. The variables are deflated by lagged total assets. We estimate Eq. (2) for each industry in each year, and use the residuals as the discretionary accruals (*DA*). Then, the pre-IPO earnings management model is specified as:

$$|DA| = \beta_0 + \beta_1 CFO_IPO + \beta_2 SIZE + \beta_3 LEV + \beta_4 ROA + \beta_5 GROWTH + \beta_6 INTAN + \beta_7 UDWT + \beta_8 R\&D + \beta_9 EXTRAITEM + \sum Industry Dummies + \sum Year Dummies + \varepsilon \quad (3)$$

We control the firm-level variables that may impact earnings quality based on previous literature (Yang 2013). *SIZE* is defined as the log of total assets and it is expected to have negative associated with $|DA|$. *LEV* is total liabilities scaled by total assets. It is used as a proxy for debt capacity and it is expected to be positively related to $|DA|$. *ROA*, - namely net profit scaled by total assets captures the effect of profits. *GROWTH* is defined as the change in sales deflated by total assets and it is a proxy for growth opportunities. *UDWR* captures the underwriter's reputation that may help a company pass the IPO screening process. We also control *R&D* expense and intangible asset ratio (*INTAN*). *EXTRAITEM* capture the non-recurring income. We also include year and industry fixed effects. H2 predicts that *CFO_IPO* carries a positive coefficient.

4.5 Regression model for IPO review period

We further test the length of IPO review period for the sample firms to pass the IPO screening process, we use OLS analysis to estimate the following model.

$$LnDURATION = \beta_0 + \beta_1 CFO_IPO + \beta_2 SIZE + \beta_3 LEV + \beta_4 ROA + \beta_5 GROWTH + \beta_6 INTAN + \beta_7 UDWT + \beta_8 R\&D + \beta_9 EXTRAITEM + \beta_{10} OCF + \sum Industry Dummies + \sum Year Dummies + \varepsilon \quad (4)$$

LnDURATION is the log of *DURATION* (the length of IPO review period). We control the firm-level variables that may impact the length of IPO review period.

The control variables in equation (4) are similar to those in the model of earnings management in equation (3), so we do not repeat here for brevity. Based on H3, we do not have an explicit expectation on the sign of coefficient of *CFO_IPO*.

5. EMPIRICAL RESULTS

5.1 Descriptive statistics

Panel A of Table 1 provides the descriptive statistics of the main variables. We construct a dummy variable, *CFO_IPO*, to capture whether CFO only work for the company during the IPO process and resign shortly within one year after IPO. 30.8 percent of 2188 firm-year experience CFO resignation in IPO years. $|DA|$ has the mean value of 0.111. The mean of *DECLINE* is 0.518, which means that approximately 51.8 percent of our sample IPO firms experience profitability decline immediately after the IPO. The mean value of *DURATION* is 302 days, i.e. the IPO review period for a company is 302 days; the shortest *DURATION* is only 14 days, whereas the longest IPO review period lasts for 1,332 days, which indicates that there is a significant variation in IPO process duration. We also take the logarithm of *DURATION* and denote the variable as *LnDURATION*. This value has the mean of 5.535. Panel B of Table 1 summaries the descriptive statistics of control variables, including firm size (*SIZE*), leverage (*LEV*), profitability (*ROA*), sales growth (*GROWTH*), intangible asset (*INTAN*), research and development expenses (*R&D*), operating cash flow (*OCF*), top underwriter (*UNWT*), and special items (*EXTRAITEM*). It is noteworthy that about 48 percent of firms have top 10 underwriters. All the variables above are winsorized at bottom and top 1 percent in regression analysis.

Table 1. Descriptive Statistics

Panel A Key Variables					
Variable	Obs	Mean	SD	Min	Max
<i>CFO_IPO</i>	2188	0.308	0.462	0	1
<i>DECLINE</i>	644	0.518	0.324	0	1
$ DA $	2188	0.111	0.114	0.000	0.384
<i>DURATION</i>	2188	302.478	192.670	14	1332
<i>LnDURATION</i>	2188	5.535	0.601	2.639	7.194

Panel B Control Variables					
<i>SIZE</i>	2188	19.714	0.783	17.729	21.9192
<i>LEV</i>	2188	0.477	0.161	0.094	0.821
<i>ROA</i>	2188	0.141	0.071	0.025	0.371
<i>GROWTH</i>	2188	0.435	0.472	-0.336	1.545
<i>INTAN</i>	2188	0.0474	0.043	0	0.199
<i>R&D</i>	2188	0.001	0.005	0	0.042
<i>OCF</i>	2188	0.126	0.103	-0.136	0.434
<i>UDWT</i>	2188	0.480	0.499	0	1
<i>EXTRAITEM</i>	2188	0.014	0.022	-0.009	0.120

All variables are defined in Appendix I.

Table 2 summarizes the univariate comparisons between the groups of IPO firms where *CFO_IPO* are equal to 1 and those where *CFO_IPO* equal to 0. The results of the t-tests are generally consistent with our previous prediction. As shown in Panel A, the mean values of *DECLINE* of the two groups (*CFO_IPO* = 0 vs. *CFO_IPO* = 1) are 0.35 and 0.83 respectively, which is significantly different at 1% level. The mean values of *|DA|* of the two groups in which *CFO_IPO* equal 0 and 1, are, respectively, 0.078 and 0.183, and are also significantly different. The t-tests also suggest higher *DURATION* and *LnDuration* for the sub-sample of firms with *CFO_IPO* equal to 1.

Table 2. Univariate Analysis for Difference in the Variables of Interest between the Firms with CFO Resignation in IPO Years and the Other Firms.

Variable	(1)		(2)		t-test (1) - (2)
	Obs	Mean	Obs	Mean	
<i>DECLINE</i>	228	0.828	416	0.348	0.480***
<i> DA </i>	674	0.183	1514	0.078	0.105***
<i>DURATION</i>	674	318.318	1514	295.426	22.891**
<i>LnDURATION</i>	674	5.588	1514	5.512	0.077***

The variables are defined in Appendix I. Here ***, **, and *denote two-tailed significance levels of 0.01, 0.05, and 0.10, respectively.

5.2 Regression analysis

5.3 Test of H1

Table 3 shows that the results for testing H1, - the likelihood of profitability decline after IPO. The coefficient of *CFO_IPO* is 0.616, which is positive and significant at the level of 5 percent, suggesting that if the IPO firms with CFO resignation are more likely to have a decline in profits in the first years of IPO than are the other newly-listed companies, keeping the values of all other variables constant. Among the control variables, the firms with higher leverage (*LEV*) and higher sales growth (*GROWTH*) are negatively associated with *DECLINE*.

Table 3. Logistic Regression Model for the Likelihood of a Decline in Post-IPO Profitability

	(1)	(2)
	<i>DECLINE</i>	<i>DECLINE</i>
<i>CFO_IPO</i>	0.667** (2.192)	0.616** (1.993)
<i>SIZE</i>		-0.271 (-1.063)
<i>LEV</i>		-4.526* (-1.781)
<i>CR</i>		1.556 (1.093)
<i>GROWTH</i>		-3.404*** (-3.128)
<i>UDWT</i>		-0.183 (-0.568)
<i>EXTRAITEM</i>		-8.339 (-1.386)
Lagged <i>ROA</i>		-15.749*** (-3.915)
Lagged <i> DA </i>		0.508 (0.212)
Observations	644	644
Pseudo R ²	0.01	0.16

The dependent variable *DECLINE* takes value of 1 if the operating ROA in the IPO year is lower than that in the previous year and 0 otherwise. The other variables are defined in Appendix I. Here ***, **, and *denote two-tailed significance levels of 0.01, 0.05, and 0.10, respectively.

5.4 Test of H2 & H3

Table 4 present the results for estimating the earnings management model in equation (3). The coefficient of *CFO_IPO* is positive and significant (the coefficient is 0.045 and the t test = 9.816). It suggests that the firms with CFO resignation shortly after IPO more aggressively manipulate the earnings during the pre-IPO periods, compared to the other firms without CFO resignation in IPO years. The control variables, if significant, have the signs consistent with our prediction. Specifically, earnings management is less associated with firm size (*SIZE*) and growth opportunities (*GROWTH*).

Table 4. Regression Model for Pre-IPO Earnings Management

	(1)	(2)	(3)
	DA	DA	DA
<i>CFO_IPO</i>	0.105*** (17.069)	0.047*** (10.320)	0.045*** (9.816)
<i>SIZE</i>		-0.009*** (-3.027)	-0.006* (-1.921)
<i>LEV</i>		0.018 (1.050)	0.013 (0.753)
<i>ROA</i>		0.038 (0.940)	0.021 (0.530)
<i>GROWTH</i>		0.142*** (27.598)	0.145*** (27.177)
<i>INTAN</i>		0.043 (1.104)	0.066 (1.545)
<i>R&D</i>		-0.186 (-0.500)	-0.499 (-1.304)
<i>UDWT</i>		-0.006 (-1.592)	-0.006 (-1.602)
<i>EXTRAITEM</i>		-0.047 (-0.533)	-0.045 (-0.501)
<i>Year</i>	N	N	Y
<i>Industry</i>	N	N	Y
<i>Observations</i>	2,188	2,188	2,188
<i>adj. R²</i>	0.183	0.496	0.512

The dependent variable is |DA|, i.e., the absolute value of residuals calculated by Modified Jones model during pre-IPO period. The other variables are defined in Appendix I. Here ***, **, and * denote two-tailed significance levels of 0.01, 0.05, and 0.10, respectively.

In Table 5, we report the results of OLS analysis for H3. The coefficient on *CFO_IPO* is 0.164 (t test = 5.882), that is, it takes a longer time for the firms from which their CFOs quit shortly after IPO to pass the IPO screening process. Thus, our null hypothesis H3 is rejected. This result suggests that it takes longer time for the Committee to evaluate whether a company with CFO resignation is qualified for IPO.

Table 5. Survival Analysis for the Length of IPO Review Period.

	(1)	(2)	(3)
	LnDURATION	LnDURATION	LnDURATION
<i>CFO_IPO</i>	0.077*** (2.757)	0.182*** (6.360)	0.164*** (5.882)
<i>SIZE</i>		0.265*** (13.852)	0.242*** (12.184)
<i>ROA</i>		-0.615** (-2.229)	-0.648** (-2.288)
<i>LEV</i>		-0.612*** (-5.909)	-0.318*** (-2.906)
<i>GROWTH</i>		-0.048 (-1.626)	-0.031 (-1.038)
<i>OCF</i>		0.291** (1.969)	0.337** (2.316)
<i>R&D</i>		-7.385*** (-3.293)	-8.406*** (-3.670)
<i>INTAN</i>		0.016 (0.058)	0.183 (0.657)
<i>EXTRAITEM</i>		1.089** (2.062)	0.654 (1.267)
<i>UDWT</i>		-0.057** (-2.359)	-0.051** (-2.142)
<i>Year</i>	N	N	Y
<i>Industry</i>	N	N	Y
<i>Observations</i>	2,188	2,188	2,188
<i>Adj. R²</i>	0.003	0.106	0.157

The dependent variable is *LnDURATION*, defined as the log value of the number of days from the CRSC received the firm's IPO application to the IPO application was approved by the Committee. The other variables are defined in Appendix I. Here ***, **, and *denote two-tailed significance levels of 0.01, 0.05, and 0.10, respectively.

6. ROBUSTNESS TESTS

Given that there are significant differences in firm characteristics between the firms with CFO resignation in IPO years and the others, we perform a propensity score matching (PSM) analysis. The PSM method further rules out the possibility that our results are driven by differences in firm characteristics. The first-stage logistic regression model is specified as:

$$Prob (CFO_IPO) = \beta_1 + \beta_2 SIZE + \beta_3 ROA + \beta_4 LEV + \beta_5 GROWTH + \varepsilon \quad (5)$$

We match each observation where *CFO_IPO* equals to 1 to an observation where *CFO_IPO* equals to 0 in the same year with nearest probability estimated from equation (5). The matching procedure yields a reduced sample of 479 matched pairs of IPOs with shortly CFO resignation and the others without firm-years. We rerun models (3) and (4) based on the matched sample and report the results in Columns (1) and (2) of Table 6, respectively. The results are consistent with the previous tests, suggesting that our previous inferences are not affected by firm characteristics.

Table 6. Results of PSM Analysis

	(1) <i>LnDURATION</i>	(2) <i> DA </i>
<i>CFO_IPO</i>	0.112*** (3.138)	0.029*** (5.424)
<i>SIZE</i>	0.269*** (7.721)	0.002 (0.400)
<i>LEV</i>	-0.308* (-1.823)	0.047* (1.718)
<i>ROA</i>	-0.205 (-0.426)	0.232*** (3.593)
<i>GROWTH</i>	-0.107** (-2.025)	0.101*** (8.943)
<i>INTAN</i>	-0.133 (-0.301)	0.043 (0.657)
<i>R&D</i>	-9.211*** (-2.640)	-1.410*** (-3.296)
<i>UDWT</i>	-0.095*** (-2.647)	-0.005 (-1.034)
<i>OCF</i>	0.384* (1.683)	
<i>EXTRAITEM</i>	-0.009 (-0.012)	-0.156 (-1.231)
<i>Year</i>	Y	Y
<i>Industry</i>	Y	Y
<i>Observations</i>	958	958
<i>R-squared</i>	0.200	0.279

The dependent variable in column (1) is *LnDURATION*, defined as the log value of the number of days from the CRSC received the firm's IPO application to the IPO application was approved by the Committee. The dependent variable in column (2) is *|DA|*, defined as the absolute value of discretionary accruals in pre-IPO periods. The other variables are defined in Appendix I. Here ***, **, and *denote two-tailed significance levels of 0.01, 0.05, and 0.10, respectively.

We separately use upward and downward earnings accruals to retest the H2. We conjecture that CFOs who resign shortly after IPO are more likely to manipulate pre-IPO earnings upward in order to pass the screening of CRSC. The results of table 7 support our prediction.

Table 7. Use of Signed Discretionary Accruals to Measure Earnings Management

	(1) <i>UPWARD_DA</i>	(2) <i>DOWNWARD_DA</i>
<i>CFO_IPO</i>	0.013** (1.983)	-0.003 (-0.572)
<i>SIZE</i>	-0.004 (-1.044)	0.004 (1.330)
<i>LEV</i>	0.050* (1.873)	-0.064*** (-3.390)
<i>ROA</i>	0.211*** (3.340)	-0.269*** (-5.745)
<i>GROWTH</i>	0.021*	-0.024***

	(1.955)	(-2.885)
INTAN	-0.073	-0.068
	(-1.280)	(-1.477)
R&D	-0.634	-0.278
	(-1.449)	(-0.695)
UDWT	-0.001	0.004
	(-0.226)	(1.001)
EXTRAITEM	-0.057	0.142
	(-0.441)	(1.364)
Industry	Y	Y
Observations	844	1,119
Adj-R ²	0.073	0.086

The dependent variable is *UPWARD_DA* (*DOWNWARD_DA*), defined as positive (negative) values of discretionary accruals during pre-IPO period. The other variables are defined in Appendix I. ***, **, and *denote two-tailed significance levels of 0.01, 0.05, and 0.10, respectively.

7. CONCLUSIONS

An IPO company experiencing an earnings decline immediately after the IPO is widely criticized for being of low quality in China. One of the explanations why firms experience earnings decline immediately after IPO is that firms manipulate their performance of pre-IPO period in order to pass the screening process. Combining the evidence of immediate earnings decline after IPO and the common phenomena in that CFOs quit shortly from newly-listed firms, it suggests that CFOs dissociate themselves from firms before the firms' performance is suspected.

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APPENDIX I: DEFINITIONS OF THE VARIABLES

<i>CFO_IPO</i>	Equals 1 for the CFO who quit from company within one year after IPO and 0 otherwise.
<i>DECLINE</i>	Equals 1 if the net income of IPO year is lower than pre-IPO and 0 otherwise
<i> DA </i>	The absolute value of residual calculated by modified Jones model during three years before the IPO
<i>LnDURATION</i>	the log value of the number of days from the CRSC received the IPO application to the CRSC approved firm's IPO application
<i>DURATION</i>	the number of days from the CRSC received the IPO application to the CRSC approved firm's IPO application
<i>SIZE</i>	the log value of total assets
<i>LEV</i>	the ratio of total liabilities to total assets
<i>GROWTH</i>	the change in sales which deflated by total assets
<i>OCF</i>	the ratio of net operating cash flow to total assets
<i>INTAN</i>	the ratio of intangible assets to total assets
<i>EXTRAITEM</i>	the ratio of net non-recurring income to total income
<i>UDWT</i>	Equals 1 for a top-10 largest asset size underwriter and 0 otherwise
<i>R&D</i>	The ration of R&D to total assets