J. of Multi. Fin. Manag. 23 (2013) 134–145

Contents lists available at SciVerse ScienceDirect

Journal of Multinational Financial Management

journal homepage: www.elsevier.com/locate/econbase

CEO's financial experience and earnings management☆

Fuxiu Jiang*, Bing Zhu, Jicheng Huang

School of Business, Renmin University of China, 59 Zhongguancun Street, Haidian District, Beijing 100872, China

ARTICLE INFO

Available online 14 March 2013

JEL classification:
G32
G34
M41

Keywords:
Financial experience
Earnings management
Management turnover
CEO

ABSTRACT

We study whether Chinese CEOs with financial experience engage in more earnings management or less earnings management than those without such experience. In doing so, we distinguish between accrual-based earnings management and real earnings management. Overall, we find that CEOs with financial experience tend to do less real earnings management, while we find no evidence that they do either more or less accrual-based earnings management. Our findings tend to confirm that CEOs with financial experience provide more precise earnings information and higher quality financial statements.

1. Introduction

Although top managers, especially CEOs, are presumed to have a generalist's view, their past work experience shapes an orientation in their life, and this orientation can exert some influence on the firm's strategic choices (Hambrick and Mason, 1984). The impact of the CEO's work experience upon strategy adoption is well established. An early case study by Dearborn and Simon (1958) reports that when a group of executives from different functional areas are presented with the same problem,

☆ We thank an anonymous referee and Kenneth A. Kim for the helpful and excellent comments. We acknowledge the financial support from Program for New Century Excellent Talents in University (no. NCET-10-0796), the Fundamental Research Funds for the Central Universities and the Research Funds of Renmin University of China (nos. 11XNJ005, 11XNK029), and China National Natural Science Foundation (nos. 70972129 and 71172179). Any errors are entirely our own. Huang thanks the support of the Ministry of Education academic doctoral Prize in 2011.

* Corresponding author.
E-mail addresses: jfx@ruc.edu.cn (F. Jiang), lichendaozhu@163.com (B. Zhu), huangjicheng008@163.com (J. Huang).

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http://dx.doi.org/10.1016/j.mulfin.2013.03.005

they define the problem largely in terms of goals and tasks in their respective functional areas, even though they are motivated to consider it from a company-wide viewpoint. Subsequent empirical studies provide further evidence. For example, Song (1982) finds that CEOs with operational work experience are more apt to favor internally developed diversification, while CEOs with experience in nonoperational functions are more inclined toward diversification through acquisition. Tyler and Steensma (1998) show that executives with technical work experience assess potential technological alliances more favorably than their counterparts with other work experience. Barker and Mueller (2002) claim that R&D spending is greater at firms where CEOs have career experience in R&D. All these studies show that the CEO's past functional experience significantly affects firm decisions.

In recent years, more and more companies have tended to hire CEOs with financial experience. Durfee (2005) reports that the percentage of Fortune 100 CEOs who were former CFOs increased from 12% to 20% over the past ten years. Cullinan and Roush (2011) find that out of 264 CEO appointments in publicly traded firms from 2001 to 2004, 15.48% of the CEOs appointed before SOX had accounting and/or finance experience, while 33.33% of CEOs appointed after SOX had it. This trend also holds in China. In 1995, only 0.9% of CEOs had financial experience, but the percentage increased to 5.71 in 2002, and remained above 5% from 2003 to 2010. If the CEO's past functional experience influences the firm's decisions, and CEOs with financial experience are more familiar with or expert in financial decisions, is there any difference in financial decisions between firms whose CEOs have had financial experience and firms whose CEOs have not? In this paper, we try to answer this question from the perspective of earnings management.

Many studies in the fields of finance and accounting focus on earnings management techniques, motivation, and governance mechanisms. For example, Baber et al. (1991), Bartov (1993), Roychowdhury (2006), and Beatriz and Encarna (2009) investigate why and how management manipulates earnings opportunistically. Klein (2002), Xie et al. (2003), and Bergstresser and Philippon (2006) study how earnings management can be effectively constrained through government mechanisms. Matsunaga and Yeung (2008) find that firms whose CEOs have financial experience provide more precise earnings guidance and improve the quality of financial disclosure, and they argue that the quality of a firm's financial disclosures is a function of the CEO's financial experience. To our knowledge, their article provides the first empirical evidence on the impact of CEOs with financial experience on earnings management.

However, there is still some room to study this topic. First, Matsunaga and Yeung (2008) used only one year (2004) of data to identify CEOs from the ExecuComp database, so their research employs a relatively small sample. Thus, it is important to understand whether the result is robust and broadly applicable. Furthermore, they examined the effect of the CEO's financial experience only on accrual-based earnings management through discretionary accruals, and did not consider earnings management through real activities.

Many studies demonstrate that earnings management includes both accrual-based and real activity earnings management (Schipper, 1989; Healy and Wahlen, 1999). Accrual-based earnings management (manipulation of earnings through exploitation of accounting discretion) is easy to detect, so it becomes less likely with the development of accounting standards and regulatory systems. As the manipulation of real transactions (cash flows from operations, discretionary expenses, and production costs) is harder to discern and more flexible, firms have switched to managing earnings in this way (Roychowdhury, 2006; Cohen et al., 2008). Bruns and Merchant (1990) show in their survey that financial executives indicate a greater willingness to manipulate earnings through real activities than through accruals. Through surveys and interviews with 401 financial executives, Graham et al. (2005) find that 78% of survey participants report that they would rather smooth earnings by real economic actions, while only 7.9% state that they would alter accounting assumptions to meet an earnings target. Thus we ask whether this choice is affected by the CEO's financial experience.

Executives with expertise and cognitive frameworks based partially on their career experiences are more likely to identify problems and seek additional information from the same functional domain and thus produce more successful decisions (Hambrick and Mason, 1984; Fredrickson, 1985; Walsh, 1988; Hitt and Tyler, 1991). CEOs with financial experience who consistently follow the accounting prudence concept have developed a steady work style. In addition, they are likelier to thoroughly

understand the role of financial disclosures in reducing information asymmetry between corporations and investors (Matsunaga and Yeung, 2008) and helping market participants to assess corporate value (Hutton and Stocken, 2006). CEOs are responsible for earnings disclosure, and they must personally certify the accuracy and completeness of the financial information released by the company,[1] both in the U.S and in China. Financial expertise and experience allow CEOs to better monitor firms' accounting and disclosure policies. So compared to financially inexperienced counterparts, CEOs with financial experience provide more precise earnings guidance to analysts (Matsunaga and Yeung, 2008) and are less likely to manipulate earnings.

Using a somewhat broader definition of financial experience than do Matsunaga and Yeung, we define a CEO with financial experience as someone who has served as CFO, or in another high administrative position in finance or accounting, for example as chief accounting officer or vice-CEO for finance or accounting. In order to separate manager fixed effect from firm fixed effect,[2] we begin our empirical investigation by identifying CEO turnover events of Chinese listed firms from 2002 to 2008. Using the difference-in-differences (*DID*) estimation method, and subgrouping this sample into pre- and post-turnover samples as well as treatment samples and control samples, we test how CEOs with financial experience affect accrual-based and real earnings management. While Matsunaga and Yeung (2008) find that firms with CEOs who have CFO experience tend to use less accrual-based earnings management, we find no relation between these variables. However, in accord with their arguments that the quality of a firm's financial disclosures is a function of the CEO's financial experience, we find robust evidence that CEOs with financial experience are less likely to manage earnings by real activities than CEOs without comparable experience, which shows that CEOs with financial experience provide more precise earnings information and improve the quality of financial statements.

Our paper provides the first empirical evidence that CEO's financial experience has impact on real earnings management, and advances the growing literature on determinants of earnings management. The paper also contributes to the literature in the effect of CEO's functional experience on firm's strategic choice. In addition, our findings partly suggest a possible explanation for the recent phenomenon that many firms hire CEOs with financial experience.

The remainder of the paper is organized as follows. Section 2 introduces the data, defines the main variables, and provides descriptive statistics. Section 3 presents empirical tests on whether having a CEO with financial experience affects earnings management, measured by discretionary accruals and by activities manipulation separately. Section 4 tests the robustness of the main results. Section 5 concludes.

2. Data, definitions, and descriptive statistics

2.1. Data and sample selection

We use data on Chinese listed firms from both the Shanghai and Shenzhen Stock Exchanges. CEO turnover information comes from the WIND database. CEO experience is identified by CEO resumes from the WIND database. Financial statement data come from the China Stock Market and Accounting Research database (CSMAR). We require each CEO turnover event in this test to have data available for at least two years in the pre-turnover period and two years in the post-turnover period (excluding the turnover year).[3] The sample period is from January 1, 2002, to December 31, 2008.

We further eliminate five categories of CEO turnover events: (1) those involving firms in the financial industry; (2) those involving firms that were in special trade (ST) status in either turnover year or

[1] Frank and Goyal (2007) suggest that if a manager runs a firm for a long time, then a managerial fixed effect will be hard to tell apart from a firm fixed effect. Turnover events can partly get around these problems. The firm's basic characteristics and opportunities are not likely to be fundamentally changed around a turnover event, so changes in firm policies can be partly attributed to CEO changes.

[2] Allowing for some high frequency of firm CEO turnovers, if the same firm has more than two turnovers, we require that each interval between two turnovers be not less than 4 years, or we keep only the first turnover.

[3] In Table 1 we report that we have 977 CEO turnover events, but we use only 949 in our research. The other 28 events include 24 in which the former CEO had had financial experience while the new CEO had not, and 4 events in which both the former CEO and the new CEO had had financial experience.

Table 1
CEO turnover sample selection process.

No.	CEO turnover: 2000–2010	Elimination	Observation
1	CEO turnovers for nonfinancial listed firms		4198
2	Exclude turnovers before 2002 and after 2008	1916	2282
3	Exclude firms with ST status in year of CEO turnover and one year before	352	1930
4	Exclude firms with CEO tenure less than two years	457	1473
5	Exclude firms with reappointment of CEO	17	1456
6	Exclude firms with missing data	479	977

the preceding year (by the rules of the China Securities Regulatory Commission, firms reporting losses in two consecutive years operate under a special trade mechanism, and their strategy and activities are quite different from those of other firms); (3) events involving CEOs with tenure of less than two years (since such CEOs are unlikely to have continuous influence on the firm's decisions); (4) events in which the CEO is the same person before and after the turnover (some CEOs are reappointed); (5) events with missing data. Our final sample includes 977 CEO turnover events. The detailed sample selection process is shown in Table 1.

2.2. Variable definition

2.2.1. Financial experience

We deem the CEO to have had financial experience if CEO has previously served as CFO, chief accounting officer, vice-CEO in charge of the finance or accounting department. In the end, 949 CEO turnover events are included in our sample.[4] Of these, 52 are cases in which the new CEO has financial experience while the former one has not, which serve as our treatment group; 897 are turnovers in which neither CEOs has financial experience, which act as our control group. This turnover sample allows us to investigate whether changes in earnings management associated with the appointment of financially experienced CEOs differ from changes associated with the appointment of financially inexperienced ones.

2.2.2. Earnings management

Earnings management includes accrual-based and real activity earnings management. We compute discretionary accruals to proxy for accrual-based earnings management using the Jones model (Jones, 1991). We also use a cross-sectional modified Jones model to test the robustness of our findings. We first run the following cross-sectional OLS regression in Eq. (1) for each CSRC industry-year with at least 10 observations. This approach partially controls for industry-wide changes in economic conditions that affect accruals (Defond and Jiambalvo, 1994; Kasznik, 1999). Then for every firm-year, the discretionary accruals ($DAC_{i,t}$) is total accruals minus the fitted normal accruals using the estimated coefficient from Eq. (1).

$$\frac{TA_{i,t}}{A_{i,t-1}} = \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{\Delta REV_{i,t}}{A_{i,t-1}} + \beta_3 \frac{PPE_{i,t}}{A_{i,t-1}} \tag{1}$$

where $TA_{i,t} = (\Delta CA_{i,t} - \Delta CASH_{i,t}) - (\Delta CL_{i,t} - \Delta CLD_{i,t}) - DEP_{i,t}$; $TA_{i,t}$ is the total accruals of firm i for period t; $\Delta CA_{i,t}$ is the change in current assets of firm i for period t; $\Delta CASH_{i,t}$ is the change in cash and cash equivalents of firm i for period t; $\Delta CL_{i,t}$ is the change in current liabilities of firm i a for period t; $\Delta CLD_{i,t}$ is the change in long-term debt due within one year of firm i for period t; $DEP_{i,t}$ is depreciation and amortization expense of firm i for period t; $A_{i,t-1}$ is total assets of firm i at the end of period $t-1$; $\Delta REV_{i,t}$ is the change of revenue of firm i for period t; $PPE_{i,t}$ is fixed assets of firm i at period t; $DAC_{i,t}$ is discretionary accruals of firm i for period $\{t\}$. All the variables are scaled by $A_{i,t-1}$.

[4] In Table 1 we report that we have 977 CEO turnover events, but we use only 949 in our research. The other 28 events include 24 in which the former CEO had had financial experience while the new CEO had not, and 4 events in which both the former CEO and the new CEO had had financial experience.

To capture real earnings management, we follow Roychowdhury (2006) and separately estimate abnormal levels of cash flows from operations, discretionary expenses, and production costs. For every firm-year, we measure the abnormal CFO (*EM_CFO*), abnormal production costs (*EM_COST*), and abnormal discretionary expenses (*EM_EXP*) as the difference between actual values and the normal levels calculated using the estimated coefficient from cross-sectional regressions for each industry and year in Eqs. (2)–(4). Then we use these three variables as proxies for real earnings management (*EM*) in Eq. (5).

$$\frac{\mathrm{CFO}_{i,t}}{A_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{S_{i,t}}{A_{i,t-1}} + \beta_3 \frac{\Delta S_{i,t}}{A_{i,t-1}} + \varepsilon_t \tag{2}$$

$$\frac{COST_{i,t}}{A_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{S_{i,t}}{A_{i,t-1}} + \beta_3 \frac{\Delta S_{i,t}}{A_{i,t-1}} + \beta_4 \frac{\Delta S_{i,t-1}}{A_{i,t-1}} + \varepsilon_t \tag{3}$$

$$\frac{EXP_{i,t}}{A_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{A_{i,t-1}} + \beta_2 \frac{S_{i,t-1}}{A_{i,t-1}} + \varepsilon_t \tag{4}$$

$$EM = EM\_COST - EM\_\mathrm{CFO} - EM\_EXP \tag{5}$$

where $\mathrm{CFO}_{i,t}$ is net cash flow from operations of firm i for period t; $COST_{i,t}$ is production cost, defined as the sum of cost of goods sold and the change in inventories of firm i for period t; $EXP_{i,t}$ is the sum of sales expense and administrative expense of firm i for period t; $S_{i,t}$ is revenues of firm i for period t; $\Delta S_{i,t}$ is change in revenues of firm i for period t; and $\Delta S_{i,t-1}$ is change in revenues of firm i for period $t-1$. $A_{i,t-1}$ is total assets of firm i at the end of period $t-1$. All the variables are scaled by $A_{i,t-1}$.

Following Bergstresser and Philippon (2006) and Jiang et al. (2010), we include among our control variables firm size (*SIZE*), firm leverage (*LEVERAGE*), profitability (*ROA*), growth (*TOBINQ*), standard deviation of cash flow from operations (*STDCASH*), standard deviation of revenues (*STDSALE*), and standard deviation of revenues growth (*STDGROWTH*). In addition, as in studies of how earnings management can be effectively constrained through government mechanisms (Klein, 2002; Xie et al., 2003; Bergstresser and Philippon, 2006), and following Cohen et al. (2008), we control for a set of dummy variables to proxy for corporate governance features and audit quality. We also include year and industry dummies. Detailed variable definitions are in Table 2.

Table 2
Variable definitions.

Variable	Implication	Definition
EM	Real earnings management	Abnormal levels of cash flows from operations, discretionary expenses and production costs, from Roychowdhury (2006) model
DAC	Accrual-based earnings management	Absolute discretionary accruals, from Jones (1991) model
SIZE	Firm size	Log of the firm's total assets
LEVERAGE	Firm leverage	Total book value of debt normalized by total book value of assets
ROA	Return on assets	Net income divided by average total assets
TOBINQ	Growth ratio	Sum of the total book value of debt and market value of equity deflated by the firm's total assets
STDCASH	Standard deviation of cash flows from operations	Standard deviation of the firm's cash flows from operations over the preceding three-year period including the current year
STDSALE	Standard deviation of revenues	Standard deviation of the firm's revenues over the preceding three-year period including the current year
STDGROWTH	Standard deviation of revenues growth	Standard deviation of the firm's revenues growth over the preceding three-year period including the current year
AUDIT	Audit quality	An indicator variable that equals one if the firm is audited by one of the Big Four audit firms, and zero otherwise
OPINION	Auditing opinion	An indicator variable that equals one for standard qualified report, and zero otherwise
CON	Property ownership	An indicator variable that equals one if the firm is controlled by state-owned enterprises, and zero otherwise

Table 3
Descriptive statistics.

Variable	Treatment			Control			T-test of mean differences
	Mean	Median	*N*	Mean	Median	*N*	Two-tailed *p*-value
Panel A: firm characteristics							
SIZE	21.29	21.17	208	21.42	21.37	3588	0.08
LEVERAGE	0.50	0.52	208	0.52	0.52	3588	0.11
ROA	0.02	0.02	208	0.02	0.02	3588	0.58
TOBINQ	1.56	1.29	208	1.54	1.27	3588	0.66
STDCASH	0.05	0.04	208	0.05	0.03	3588	0.30
STDSALE	0.10	0.07	208	0.10	0.06	3588	0.80
STDGROWTH	0.35	0.18	208	0.36	0.17	3588	0.80
OPINION	0.93	1.00	208	0.92	1.00	3588	0.62
AUDIT	0.02	0.00	208	0.03	0.00	3588	0.47
CON	0.63	1.00	208	0.72	1.00	3588	0.01
Panel B: earnings management							
DAC	0.14	0.09	208	0.12	0.09	3588	0.23
EM	0.17	0.12	208	0.15	0.10	3588	0.17

Treatment means that the former CEO lacks financial experience and the new CEO has financial experience. Control indicates that both former and new CEOs lack financial experience. All variables are defined in Table 2.

2.3. Descriptive statistics

Table 3 provides descriptive statistics of the variables used in this study. We compare the treatment sample to the control sample. Panel A shows the mean and median of firm characteristics and Panel B contains the descriptive statistics of earnings management. To avoid the influence of outliers, we winsorize each continuous variable at the top and bottom one percentiles of their distributions.

From panel A of Table 3, we can see that the average log value of assets of the treatment group is 21.29, while that of the control group is 21.42. The average book leverage of the treatment group is 0.5 and that of the control group is 0.52. *ROA* is the same for both groups, at 0.02. 93% of the treatment group firms and 92% of the control group firms received standard qualified auditing reports. 2% of the treatment group firms and 3% of the control group ones are audited by one of the Big 4 audit firms (Deloitte & Touche, Ernst & Young, KPMG, and Pricewaterhouse Coopers). State-owned enterprises constitute 63% of the treatment group firms and 72% of the control group ones. The result shows that there is no significant difference between the treatment group firms and control group ones on most of the firm characteristic measures, except for the small difference of average firm size and percentage of State-owned enterprises.

In panel B of Table 3, we provide descriptive statistics of accrual-based and real earnings management for the treatment and control groups. The average (median) accrual-based earnings management of the treatment group is 0.14 (0.09) and that of the control group is 0.12 (0.09). The mean (median) of real earnings management is 0.17(0.12) for the treatment group and 0.15(0.1) for the control group.

3. Empirical method and results

3.1. Difference-in-differences method

This paper, based on CEO turnovers, uses the difference-in-differences (*DID*) methodology (Imbens and Wooldridge, 2009), which exploits the richness of firm-level data while also avoiding the pitfalls of the regression-based method. The empirical model for the *DID* approach is as follows.

$$|EM_{i,t}| = \alpha_0 + \alpha_1 EER_i * POST_t + \alpha_2 EER_i + \alpha_3 POST_t + \alpha_4 X_{i,t} + \varepsilon_{i,t} \quad (6)$$

$$|DAC_{i,t}| = \alpha_0 + \alpha_1 EER_i * POST_t + \alpha_2 EER_i + \alpha_3 POST_t + \alpha_4 X_{i,t} + \varepsilon_{i,t} \quad (7)$$

where i indexes firms, t indexes years, $|EM|$ is the absolute value of real earnings management, and $|DAC|$ is the absolute value of accrual-based earnings management. *EER* is a grouping variable set equal

to one if the former CEO lacks financial experience while the new CEO has it (defining our treatment group), and zero if both the former CEO and the new one lack financial experience (defining our control group). *POST* is a time variable set equal to one if the firm-year is in the post-appointment period and zero if in the pre-appointment period. $X_{i,t}$ is a vector of firm-level control variables that include firm size, firm leverage, profitability, growth, standard deviation of cash flows from operations, standard deviation of revenues, standard deviation of revenues growth (Bergstresser and Philippon, 2006; Jiang et al., 2010), corporate governance and audit quality (Klein, 2002; Xie et al., 2003; Bergstresser and Philippon, 2006; Cohen et al., 2008), and year dummies as well as industry dummies. All the standard errors in regressions are clustered at the firm level to adjust for heteroskedasticity.

We run the OLS regression model using the CEO turnover samples for up to two years before turnover and up to two years after turnover (i.e., from $t-2$ to $t+2$ relative to event year t). Our dominating variable is the interaction of the two indicator variables, $EER \times POST$. The coefficient α_1 represents the incremental change in earnings management associated with the appointment of a CEO who has financial experience relative to the appointment of a CEO who has no financial experience. If α_1 is significantly positive, then the appointment of a CEO with financial experience is associated with more earnings management, and vice versa. The coefficient α_2 indicates whether the earnings management of the treatment group differs from that of the control group before the appointment. The coefficient α_3 gives the difference of earnings management between the pre-appointment and post-appointment periods for the control group.

3.2. CEO's financial experience and real earnings management

To understand the impact of CEO financial experience on real earnings management, we first estimate separate regressions for the periods before and after the CEO appointment. As the result of columns (1) and (2) in Table 4, we find that the estimated coefficient for *EER* before the appointment is significantly positive and that after the appointment it is negative but insignificant (coefficient = −0.016, $p = 0.276$). The results indicate that firms that appoint a new CEO with financial experience tend to have done more real earnings management *before* the turnover than firms that appoint a new CEO without financial experience, but *after* the turnover there is almost no difference.

We then conduct separate regressions for the treatment group and the control group, and the results are shown as column (3) and column (4) in Table 4. We can see that the coefficient of *POST* is significantly negative for the treatment group and positive for the control group; that is, there is a significantly negative relation between the new CEO's financial experience and real earnings management in the treatment group, while in the control group there is a contrary result. These results suggest that firms whose new CEO has financial experience may encounter significant earnings decline after the turnover, but for firms whose new CEO has no financial experience, real earnings management will rise.

Lastly, we use the whole sample to run a regression of the *DID* model. From column 5 in Table 4, we find that the coefficient on the interaction of *EER* and *POST* (*EER* × *POST*) is significantly negative (coefficient = −0.045, $p = 0.005$), which is consistent with the results in column (3) and column (4).

The control variables *SIZE*, *LEVERAGE*, *ROA*, *TOBINQ*, *STDSALE*, *STDCASH*, and *STDGROW* are all positively related to real activities earnings management. However, the corporate governance and audit variable is not significantly related to real activities earnings management, which shows that corporate governance has weak effects on earnings management in China. All of the above results provide a consistent and robust conclusion that appointing a CEO with financial experience lessens real earnings management.

3.3. CEO's financial experience and accrual-based earnings management

Using similar methods, we examine whether accrual-based earnings management is associated with the CEO's financial experience. Table 5 provides the regression results, which run counter to the findings of Matsunaga and Yeung (2008) that firms run by ex-CFOs tend to have more income-decreasing (conservative) accruals. As columns (1) and (2) in Table 5 show, from separate

Table 4
CEO's financial experience and real earnings management.

	Pre-appointment	Post-appointment	Treatment	Control	Whole
EER	0.036**	−0.016			0.034*
	(−0.041)	*(0.276)*			*(0.052)*
POST			−0.077***	0.016**	0.014**
			(0.008)	*(0.016)*	*(0.033)*
EER × *POST*					−0.045***
					(0.005)
SIZE	0.008	0.019***	0.020	0.014***	0.014***
	(0.107)	*(0.001)*	*(0.211)*	*(0.001)*	*(0.000)*
LEVERAGE	0.038*	0.0316	0.095	0.030	0.033*
	(0.096)	*(0.191)*	*(0.216)*	*(0.119)*	*(0.081)*
ROA	0.318***	0.246***	−0.042	0.278***	0.264***
	(0.000)	*(0.000)*	*(0.826)*	*(0.000)*	*(0.000)*
TOBINQ	0.009	0.018**	0.022	0.014*	0.015**
	(0.335)	*(0.041)*	*(0.298)*	*(0.052)*	*(0.04)*
STDSALE	0.189***	0.264***	0.312*	0.229***	0.229**
	(0.000)	*(0.000)*	*(0.056)*	*(0.000)*	*(0.000)*
STDCASH	0.782***	0.778***	0.964***	0.784***	0.792***
	(0.000)	*(0.000)*	*(0.005)*	*(0.000)*	*(0.000)*
STDGROWTH	0.009	0.025**	0.023*	0.016**	0.016**
	(0.259)	*(0.011)*	*(0.095)*	*(0.035)*	*(0.027)*
OPINION	−0.001	−0.026*	0.022	−0.015	−0.013
	(0.935)	*(0.064)*	*(0.632)*	*(0.149)*	*(0.209)*
AUDIT	0.006	0.016	0.117*	0.005	0.010
	(0.731)	*(0.598)*	*(0.070)*	*(0.785)*	*(0.557)*
CON	0.001	0.004	0.009	0.001	0.001
	(0.944)	*(0.738)*	*(0.697)*	*(0.863)*	*(0.86)*
INTERCEPT	−0.167	−0.342***	−0.411	−0.265***	−0.274***
	(0.152)	*(0.007)*	*(0.256)*	*(0.007)*	*(0.005)*
Year	YES	YES	YES	YES	YES
Industry	YES	YES	YES	YES	YES
Adjusted R^2	16.26%	19.47%	35.03%	17.71%	18.75%
Observations	1898	1898	208	3588	3796

This table presents the estimated coefficients of OLS regression relating the appointment of a CEO with financial experience to real earnings management as estimated by the method of Roychowdhury (2006). Pre-appointment firm-years are in the two-year period before the CEO turnover year, and Post-appointment firm-years are in the two-year period after the CEO turnover year. Treatment means that the former CEO lacks financial experience and the new CEO has financial experience. Control indicates that both former and new CEOs lack financial experience. The whole sample consists of all firms with CEO turnover, estimated by the *DID* model. *EER* is a dummy variable set equal to one if the sample is in the Treatment group and zero if in the Control group. *POST* is a time dummy variable set equal to one if the firm-year is in the Post-appointment period, zero if in the Pre-appointment period. *EER* × *POST* is an interaction of the two indicator variables. All control variables are defined in Table 2.

* Indicates that estimated coefficient is significant at two-tailed 10% level.
** Indicates that estimated coefficient is significant at two-tailed 5% level.
*** Indicates that estimated coefficient is significant at two-tailed 1% level.

regression results for the pre- and post-appointment periods, we find that neither of the coefficients of *EER* is significant, which suggests that there is no significant difference in accrual-based earnings management between firms that have CEOs with financial experience and those that have CEOs without comparable experience. We also find that the coefficient of *POST* is not significant either in the treatment or in the control group, which indicates that the financial experience of a newly appointed CEO (or lack thereof) has no impact on accrual-based earnings management. In addition, we test the relation with the whole turnover sample using the *DID* method, with results shown in column (5). The coefficient on the interaction *EER* and *POST* (*EER* × *POST*) is not significant, nor are the coefficients for *EER* and *POST* separately. All of the results suggest that financially experienced CEOs do not differ from financially inexperienced ones in accrual-based earnings management.

Table 5
CEO's financial experience and accrual-based earnings management.

	Pre-appointment	Post-appointment	Treatment	Control	Whole
EER	0.004	0.002			0.003
	(0.745)	*(0.884)*			*(0.783)*
POST			0.006	0.005	0.005
			(0.797)	*(0.242)*	*(0.288)*
EER×POST					0.001
					(0.953)
SIZE	0.001	0.006*	−0.004	0.005*	0.004
	(0.741)	*(0.099)*	*(0.823)*	*(0.085)*	*(0.121)*
LEVERAGE	−0.005	−0.001	−0.082	−0.001	−0.005
	(0.787)	*(0.953)*	*(0.186)*	*(0.942)*	*(0.739)*
ROA	−0.048	−0.143**	−0.152	−0.124**	−0.125***
	(0.435)	*(0.015)*	*(0.355)*	*(0.011)*	*(0.007)*
TOBINQ	0.012	0.019***	0.029	0.015***	0.016***
	(0.197)	*(0.006)*	*(0.318)*	*(0.006)*	*(0.004)*
STDSALE	0.072	0.087**	0.031	0.084***	0.081***
	(0.057)	*(0.03)*	*(0.643)*	*(0.005)*	*(0.004)*
STDCASH	0.691***	0.714***	1.454***	0.669***	0.719***
	(0.000)	*(0.000)*	*(0.000)*	*(0.000)*	*(0.000)*
STDGROWTH	0.005	0.022**	0.001	0.013**	0.013**
	(0.364)	*(0.012)*	*(0.838)*	*(0.02)*	*(0.022)*
OPINION	−0.015	−0.032**	0.004	−0.026**	−0.024**
	(0.245)	*(0.013)*	*(0.898)*	*(0.013)*	*(0.014)*
AUDIT	−0.016	−0.014	0.07*	−0.017*	−0.015
	(0.112)	*(0.29)*	*(0.087)*	*(0.072)*	*(0.111)*
CON	−0.013	−0.01	−0.004	−0.012**	−0.013**
	(0.106)	*(0.177)*	*(0.835)*	*(0.045)*	*(0.036)*
INTERCEPT	0.091	−0.019	0.073	0.0158	0.022
	(0.342)	*(0.829)*	*(0.784)*	*(0.824)*	*(0.734)*
Year	YES	YES	YES	YES	YES
Industry	YES	YES	YES	YES	YES
Adjusted R^2	11.84%	20.61%	38.94%	15.54%	16.08%
Observations	1904	1904	196	3612	3808

This table presents the estimated coefficients of OLS regression relating the appointment of a CEO with financial experience to accrual-based earnings management as estimated by the method of Jones (1991). Pre-appointment firm-years are in the two-year period before the CEO turnover year, and Post-appointment firm-years are in the two-year period after the CEO turnover year. Treatment means that the former CEO lacks financial experience and the new CEO has financial experience. Control indicates that both former and new CEOs lack financial experience. The whole sample consists of all CEO turnover firms estimated by the *DID* model. *EER* is a dummy variable set equal to one if the sample is in the Treatment group and zero if in the Control group. *POST* is a time dummy variable set equal to one if the firm-year is in the Post-appointment period, zero if in the Pre-appointment period. *EER* × *POST* is an interaction of the two indicator variables. All control variables are defined in Table 2.

* Indicates that estimated coefficient is significant at two-tailed 10% level.
** Indicates that estimated coefficient is significant at two-tailed 5% level.
*** Indicates that estimated coefficient is significant at two-tailed 1% level.

In conclusion, we find that appointing a CEO with financial experience improves earnings quality, which is consistent with the arguments of Matsunaga and Yeung (2008). However, this effect works by decreasing real earnings management, rather than by decreasing accrual-based earnings management as Matsunaga and Yeung argue.

4. Robustness tests

To test the reliability of our previous findings, we conduct the following robust checks:

4.1. Cross-year average regression

Some studies have used cross-year averages of earnings quality measures to technically dampen the noise in earnings quality measures (Doyle et al., 2007). So we also compute the pre-event and

post-event average of the earnings quality variable and other firm-characteristic variables, and then run regressions based on these cross-year average variables; the results remain unchanged.

4.2. Median regression

As earnings management variables are still quite skewed even after winsorization, in order to mitigate the potential outliers' impact on the results, we use the logarithm of the earnings management variable as the dependent variable. We also use median regression as an additional regression method. The results are again unchanged.

4.3. Modified cross-sectional Jones model

We use discretionary accruals (Jones, 1991) as a proxy for accrual-based earnings management. Then we repeat our analysis with other discretionary accruals methods such as modified Jones models to test our findings (Dechow et al., 1995; Kothari et al., 2005; Louis et al., 2008; Raman and Shahrur, 2008). As in our main findings, the estimated coefficients on the dummy variables *EER* and *POST* are insignificant.

4.4. Controlling other CEO characteristics

Studies have recognized the effect of other CEO characteristics, such as age, tenure, educational experience, and gender, on corporate financial policies (Alderfer, 1986; Dechow and Sloan, 1991; Francis et al., 2008; Baik et al., 2011; Hazarika et al., 2012). Our results are still robust after we control these factors.

4.5. Controlling other governance-related variables

Some previous empirical studies on emerging markets (including China and India) show that board characteristics, ownership structure, and other corporate governance variables significantly influence earnings management (Firth et al., 2007; Liu and Lu, 2007; Sarkar et al., 2008). We therefore control the number of independent directors, the proportion of shares held by the largest shareholder, and a dummy variable for whether the managers hold shares. Again, the results remain unchanged.

4.6. Prolonging the pre- and post- appointment periods

For the comparison above, we require that each firm in the sample have data for at least two years before CEO turnover and two years afterwards. To check robustness, we run the same model using longer time windows ($t-3$ to $t+3$ and $t-4$ to $t+4$), and the results are also unchanged.

5. Discussion

A growing literature in finance and accounting emphasizes the important role of reducing earnings management in improving corporate governance and investor protection. In China, the capital market has a relatively short history, with imperfect laws and regulations and weak investor protection. This leads to the failure of corporate governance mechanisms and to severe earnings management in listed companies. Meanwhile, compared to managers in countries with good corporate governance mechanisms and mature labor markets for managers, managers of listed firms in China face less constraint and lower compensation incentives. So they have more space to play according to their personal characteristics and preferences, which may more deeply influence corporate behavior. Therefore, for Chinese listed firms, exploring the relationship between CEO experience and earnings management has strong practical implications.

Since 2002, in order to improve the governance of listed companies and protect investor interests, the China Securities Regulatory Commission (CSRC) has issued a series of regulations, such as introducing the independent director system, implementing split share structure reform, and piloting equity

incentives. However, these regulations ignore the active role of the manager's career experience in corporate governance. Our evidence indicates that this experience importantly influences earnings management through real activities manipulation, which is harder to discern than accruals-based earnings management but more harmful to firm value. The implication is that Chinese regulatory authorities should consider the manager's career experience, for example, the CSRC might require listed firms to train CEOs more in financial accounting, or even encourage hiring executives with financial experience as CEOs. This could also inspire corporate human resources practices. Our results suggest that when evaluating accounting performance, investors should consider not only accruals and real earnings manipulation, but also the experiences of the CEO.

6. Conclusion

In light of the recent increase in the number of CEOs having financial experience, we examine whether that experience affects earnings management in Chinese A-share listed firms over the years 2002–2008. We find that the appointment of a new, financially experienced CEO lessens real earnings management. However, we find no evidence that the CEO's financial experience may affect accrual-based earnings management, which is inconsistent with the argument of Matsunaga and Yeung (2008), but is consistent with the fact that firms are more willing to manipulate earnings through real activities than through accruals.

In addition, we have an interesting finding that appointing a CEO without financial experience increases real earnings management. As this paper focuses on CEOs with financial experience, a deeper analysis and explanation of this phenomenon is left for future research.

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