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Hsin-Hung Wu, 2017

Jo-Ting Wei, Ph.D., Assistant
Professor, Department of
International Business, Providence
University, Taiwan.

Iou-Ming Wang, Ph.D., Assistant
Professor, Department of
International Business, Providence
University, Taiwan.

Hsin-Hung Wu, Ph.D., Distinguished
Professor, Department of Business
Administration, National Changhua
University, Taiwan.



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Jo-Ting Wei (Taiwan), Iou-Ming Wang (Taiwan), Hsin-Hung Wu (Taiwan)

MANDATORY RESTATEMENT, FAMILY DOMINANCE AND MANAGEMENT TURNOVER: THE EVIDENCE FROM AN EMERGING ECONOMY

Abstract

Due to the uniqueness of mandatory restatements, this paper examines whether family dominance affects the relationship between mandatory restatements and management turnover in an emerging economy – Taiwan. This paper adopts logistic regression models along with reporting the marginal effect of all explanatory variables to examine management turnover in different years around the year of mandatory restatement announcement. The findings show that family directorship weakens the positive relationship between mandatory restatements and management turnover in one year after the year of mandatory restatement announcement whereas do not show that family shareholding can affect the above relationship in any observed years. The findings have essential policy implications for security regulators and firms to strengthen family governance practices and financial reporting quality.

Keywords

mandatory restatements, family dominance,
management turnover

JEL Classification

G30, M41, J12

INTRODUCTION

In these recent years, financial restatements have received increasing concern all around the world (Su et al., 2013; Hirschey et al., 2015). Prior literature documents that financial restatements have negative economic effects, including the increase of cost of debt capital (Hirbar and Jenkins, 2004), the decline of stock prices (Palmrose et al., 2004) and high auditor litigation (Schmidt, 2012; Demirkan and Fuerman, 2014). As financial restatements are indicators of poor financial reporting, some studies examine whether those who are involved in making financial reporting decisions would be punished due to restatements, including top managers, directors and auditors. The direct and the major punishment for those persons is to replace them (Arthaud-Day et al., 2006; Hennes et al., 2008; Desai et al., 2008) and the minor punishment for them is to reduce their compensation, including their salaries and bonuses (Cheng and Farber, 2008; Wang et al., 2013; Irani et al., 2015; BenYoussef and Khan, 2016). Prior evidence is almost from the developed countries such as America, which have good corporate governance systems and rigor laws and regulations.

Taiwan is an emerging country. Compared to firms in developed countries, firms in Taiwan have weaker corporate governance practices. According to studies of Fan and Wong (2002), firms in many countries in East Asia have concentrated ownership structure. There is no

exception to Taiwan. Most Taiwanese firms are dominated by the controlling families. Family members play essential roles in determining firm governance structure and, thus, agency problems exist. Family members can exert their influence via holding shares and serving important positions in firms such as serving directors (Yeh and Woidtke, 2005; Peng and Jiang, 2010). Based on the above, in the context of Taiwan, when financial restatements are announced, family members are likely to intervene the turnover of persons who should be responsible for poor financial reporting quality. Past research ignores to focus solely on mandatory financial restatements, which have unique nature, as the restatements are forced externally, but not voluntary by restatement firms to restate earnings.

Accordingly, considering the viewpoint of incentive alignment and incentive entrenchment, this paper examines whether family dominance (family shareholding and family directorship) would affect management turnover of mandatory restatement firms in the context of Taiwan. Past literature examining the turnover of top managers in restatement firms often focuses on the turnover of individual managers such as the CEO or CFO (Arthaud-day et al., 2006; Collins et al., 2008) and little considers family influence in the above association (Xiaoxiang et al., 2013). It is necessary to provide an examination on the turnover of all firm executives together in restatement firms, including the chairman, CEO and financial executives (refers to management turnover here). In addition, taking the suggestions of Greene (1999) into account, when examining management turnover with using logistic regression models, it's better to examine the marginal effects of independent variables, so as to have a better understanding on the economic meaning on coefficients. Furthermore, unlike most literature focusing on a single year, this paper examines management turnover in different years around the year of mandatory restatement announcement, including one year before the year of mandatory restatement announcement, the year of mandatory restatement announcement and one year after the year of mandatory restatement announcement.

According to the above, this paper adopts logistic regression models along with reporting the marginal effect of all explanatory variables to examine management turnover in different years around the year of mandatory restatement announcement. The results of major analysis are consistent with the results of sensitivity analysis with considering the fixed-effect: industry and time effect in logit models. The findings show that family directors are significantly negative by related to management turnover after one year of the year of mandatory restatement announcement, whereas family shareholding is not significantly positive related to management turnover in any observed years. The results suggest that family members in restatement firms can significantly exert their influence via their directorship to reduce management turnover so as to protect their private benefits, whereas their shareholding is not a major factor to affect management turnover. The findings have essential policy implications for security regulators and firms. Security regulators and firms should strengthen family governance and firm financial reporting. The remainder of this paper is as follows. Section 1 presents literature review and hypotheses development. Section 2 provides the sample selection procedure and empirical models. Section 3 presents the results and analysis. Finally, conclusions are reported in final section.

1. LITERATURE REVIEW OF FINANCIAL RESTATEMENTS

Financial restatements often reveal that financial reporting made by firms has material accounting errors and is also likely to be fraudulent. Financial restatements can bring significant negative impact. Prior research supports that fi-

ancial restatements deteriorate the confidence of investors and creditors in financial reporting and, thus, lead to the decline of stock prices and high debt capital (Palmrose et al., 2004; Desai et al., 2006; Badertscher et al., 2011; Burks, 2011; Chakravarthy et al., 2014). Palmrose et al. (2004) examine the economic consequences of financial restatements. Their findings show that negative stock returns are related to restatements involving different situations such as more ac-

counts, fraud and decreasing financial earnings. Chakravarthy et al. (2014) document that reputation-building actions are higher (reflecting higher stock return) for restatement firms following restatements.

Some studies examine the relationship between corporate governance structure and financial restatements (Abdullah et al., 2010; Chen et al., 2011; Baber et al., 2012). Abdullah et al. (2010) examine how Malaysian Code on Corporate Governance is related to the nature of financial restatements in Malaysia and how corporate governance features are related to financial restatements. Their findings suggest that poor governance is highly associated with restatements. Chen et al. (2011) examine the association among corporate governance, growth opportunities, and earnings restatements in Taiwan. Their findings indicate that poor corporate governance is related to the occurrence of earnings restatements. Barber et al. (2012) document that corporate governance plays an essential role in determining financial reporting quality and is a major determinant of financial restatements.

Some restatement studies examine the occurrence of financial restatements from the perspective of auditing, such as auditor tenure and industry specialization and audit fee. Her et al. (2010) examine the effect of financial restatements on audit fees and further consider restatement severity. Their evidence supports that auditor would charge more audit fees to reduce their audit risk for restatement firms, particularly for firms with higher restatement severity. Blankley et al. (2012) investigate the association between financial restatements and audit fees. Unexpectedly, their evidence indicates that abnormal audit fees are negatively related to financial statements, revealing that restatements reflect low audit effort. Raghunandan et al. (2013) examine the association between nonaudit fees and restated financial statements. However, their findings do not show that restatements are related to unexpected nonaudit fees, fee ratios, and total fees. Jiang et al. (2015) examine the association between accounting restatements and audit quality in China. Their findings indicate that earnings manipulation

leads to non-cash flow restatements, whereas the positive relationship can be weakened, when high quality audit exists. Stanley and DeZoort (2007) examine how audit firm tenure is related to financial restatements via examining industry specialization and fee effects. Their evidence supports that the length of the auditor-client relationship is negatively related to the likelihood of restatements.

Little research turns attention to examine other issues, such as the process of restating financial reports (Chung and McCracken, 2014), how female directors are helpful in reducing the likelihood of financial restatements (Abbott et al., 2012), the information content of earnings following restatements (Wilson, 2008; Chen et al., 2014), the relationship between restatement disclosures and management earnings forecasts (Ettredge et al., 2013) or the timeliness of financial statement restatement disclosures (Badertscher and Burks, 2011; Schmidt and Wilkins, 2013)

2. HYPOTHESES DEVELOPMENT

2.1. Family shareholding and management turnover

Many studies have examined the punishment effects for these persons who are involved in making financial reporting decisions in the reveal of restatements. The common punishment is to reduce their compensation.

Prior evidence has shown that the compensation of top managers would be reduced due to restatements (Cheng and Farger, 2008; Collins et al., 2008; Hogan and Jonas, 2016). Cheng and Farber (2008) investigate the relationship among earnings restatements, compensation and firm performance. Their findings indicate that when restatements are announced, option-based compensation of managers will be reduced by restatement firms so as to alleviate agency problems. Collins et al. (2008) also document that the bonus compensation of managers will be decreased, when the restatement firms become the target of class-action lawsuits.

As financial restatements represent poor-quality financial reporting, those who are responsible for assuring financial reporting quality are likely to be punished, including managers, directors and auditors. Compared to the reduction of their compensation, the loss of their jobs is more serious. It is well documented that restatement firms tend to replace top managers, directors and auditors (Srinivasan, 2005; Arthaud-Day et al., 2006; Desai et al., 2006; Land, 2010; Kryzanowski and Zhang, 2013). Arthaud-Day et al. (2006) document that restatements would lead to the turnover of firm executives and directors. Desai et al. (2006) examine whether financial restatements are associated with the turnover of managers. Their findings show that firm executives in the restatement firms would be replaced in the outbreak of restatement events. They suggest that reputation penalties exist in the labor markets. Land (2010) also finds that there is a positive relationship between the severity of earnings restatement and CEO turnover.

Kryzanowski and Zhang (2013) examine the linkage of financial restatements and Sarbanes-Oxley Act to firm governance and management turnover. Their findings indicate that the effects of SOX on post-restatement turnover of management and other persons involving in assuring financial reporting quality for restatement firms exist, but are small. Huang and Scholz (2012) document that financial restatements lead to auditor resignations. Mande and Son (2013) also document that financial restatements lead to auditor turnover. Hennes et al. (2014) examine the determinants and market consequences of auditor dismissals after accounting restatements. Their findings show that the market reaction to the auditor turnover is significantly higher following more severe restatements. Rich and Zhang (2016) examine municipal accounting restatements and top financial manager turnover. Their results indicate that municipalities disclosing accounting restatements are highly related to the turnover of top financial managers.

Despite the findings, previous research mainly focuses on firms in developed countries, examines restatements without considering the motives of restatements and often ignores the roles that family members play in affecting the turnover of firm executives, directors and auditors in the reveal of restatements. Also, these studies often do not observe

their turnover in multiple years. It is likely that their turnover occurs in different years around the year of restatement announcement.

It is little known how restatements are associated with the turnover of firm executives, directors and auditors in developing countries and the roles of family members playing in affecting their turnover, when restatements are announced (Xiaoxiang et al., 2013; Ma et al., 2015). Ma et al. (2015) examine the relationship between financial restatements and auditor turnover in China. Their findings show that auditor turnover is significantly higher in restatement firms than non-restatement firms in China in the year following the restatement announcement. Xiaoxiang et al. (2013) document that family members would affect the individual turnover of managers, including the chairman, the CEO and financial executives in forced restatement firms. Their research focuses on examining the turnover of individual managers who play distinctive roles in firms.

Family dominance can be examined from family shareholding and family directorship, respectively. Significant family shareholding is generally regarded as an essential factor to alleviate agency problems between family members and shareholders. According to the viewpoint of incentive alignment, holding the majority ownership makes the interest of shareholders and that of family members are well aligned. When making decisions, family members holding great shares would often consider the interest of shareholders rather than expropriating their benefits (Classens et al., 2000; Yeh and Woidtke, 2005). This suggests that family members prefer to replace the management when restatements are announced so as to assure good-quality financial reporting in the future. Rather than examining individual turnover of managers, this paper focuses on the turnover of a management team (refers to management turnover) to examine how family dominance affects the association between mandatory restatements and their turnover. Based on the viewpoint of incentive alignment, this paper proposes the following hypothesis.

H1: Family shareholding strengthens the relation between mandatory restatements and management turnover.

2.2. Family directorship and management turnover

As mentioned above, family members play important roles in influencing on firm decisions. They are likely to enhance management turnover via their shareholding when the financial restatements are revealed. On the other hand, it is necessary to advance the understanding on how family members can affect management turnover by their directorship when restatements are revealed. Contrary to the viewpoint of incentive alignment, according to the viewpoint of incentive entrenchment, family members would often not consider the interest of shareholders when they serve as directors. Directorship makes family members have more advantage and discretionary power to make self-serving decisions by expropriating shareholders' interest. Family members serving as directors would often sacrifice minority shareholders' interest so as to maximize private benefits of family members (Classens et al., 2000; Yeh and Woidtke, 2005). In the reveal of mandatory restatements, family members serving as directors would tend to use their influence from directorship to deter management turnover, as they are on the same side with the management. Consequently, this paper proposes the following hypothesis.

H2: Family directorship weakens the relation between mandatory restatements and management turnover.

3. RESEARCH METHODOLOGY

3.1. Sample

This paper examines Taiwanese firms announcing mandatory financial restatements during 1998–2006. This paper obtained the mandatory restatement sample from the Taiwan Economic Journal (TEJ) database. The number of the total sample is 337. The data for management turnover were collected from a website search – the Market Observation Post System in one year before the year of mandatory restatement announcement (year -1), in the year of mandatory restatement

announcement (year 0) and in one year after the year of mandatory restatement announcement (year +1). The data on financial restatements, family variables and control variables were mainly collected from TEJ database.

3.2. Definition of variables and empirical model

3.2.1. Definition and measurement of variables

Management turnover variable (the dependent variable) is *MTURN*, which measures management turnover: the chairman, the CEO and financial executives. In logistic regression models, for management turnover in a given year, *MTURN* is a dummy variable that equals to 1, if there is any change for any member in management and 0 otherwise. The variable on mandatory restatements is *MREST*. *MREST* is a dummy variable that equals to 1 if the nature of financial restatements is mandatory and 0 if the firm was not forced to restate financial statements. The expected coefficient of *MREST* is positive.

Family members play essential roles in affecting management turnover once mandatory restatements occur. In this paper, the variables for family holding: *FHD* and family directorship: *FDD* respectively, are examined. *FHD* is a dummy variable that equals to 1 if family shareholding is above sample median and 0 otherwise. *FDD* is a dummy variable that equals to 1 if the percentage of family directors is above sample median and 0 otherwise. This paper does not expect any directions for *FHD* and *FDD*, as management turnover is affected by different factors (Desai et al., 2006; Agrawal and Cooper, 2005). This paper multiples *FHD* and *FDD* with *MREST*, respectively, and, then, creates the interaction term of *FHDMREST* and *FDDMREST*. According to hypothesis 1, the coefficient of *FHDMREST* is expected to be positive. Contrary, according to hypothesis 2, the coefficient of *FDDMREST* is expected to be negative.

Management turnover is affected by multiple reasons. Following prior literature (Desai et al., 2006; Agrawal and Cooper, 2005), this paper adopts the following control variables. *FE* refers to the percentage of family members as firm executives. *SHCON* refers to the level of shareholding concentration of dominant shareholders, measured by the

Herfindahl index: the sum of the squares of shareholding by dominant shareholders in a firm. This paper does not expect any direction for the two variables. Further, firm performance is controlled by the return of assets (*ROA*) and stock returns (*STOCK*). *ROA* is defined as operating income after depreciation scaled by average assets. *STOCK* is defined as raw buy-and-hold returns (including dividends and capitalization adjustments). As poor firm performance is a major reason of management turnover (Venkatraman and Ramanujam, 1986; Daily and Dalton, 1995), the expected coefficients of *ROA* and *STOCK* are both negative. *SIZE* is defined as the natural log of market capitalization. *LEV* is defined as the leverage ratio, the ratio of total liabilities divided by total assets. *GROWTH* is defined as the sales growth rate, the average annual sales growth rate for 2 years prior to the year of mandatory restatement announcement. How management turnover is related to firm size (*SIZE*), firm leverage (*LEV*) and firm growth (*GROWTH*) has no particular findings. Hence, this paper does not expect any directions for the variables.

3.2.2. Empirical models

To examine the hypotheses, firstly, this paper adopts logistic regression. Then, this paper further examines logistic regression with reporting the marginal effects (dy/dx) of all explanatory variables. The empirical model is as follows.

$$\begin{aligned}
 MTURN = & \alpha_0 + \beta_1 \cdot MREST + \\
 & + \beta_2 \cdot FHD + \beta_3 \cdot FDD + \\
 & + \beta_4 \cdot FHDMREST + \\
 & + \beta_5 \cdot FDDMREST + \beta_6 \cdot FE + \\
 & + \beta_7 \cdot SHCON + \beta_8 \cdot ROA + \\
 & + \beta_9 \cdot STOCK + \beta_{10} \cdot SIZE + \\
 & + \beta_{11} \cdot LEV + \beta_{12} \cdot GROWTH + \varepsilon.
 \end{aligned} \quad (1)$$

In order to measure management turnover in different years around the year of mandatory restatement announcement, this paper further defines the research models for one year before the year of mandatory restatement announcement (year -1), the year of mandatory restatement announcement (year 0), and one year after the year of mandatory

restatement announcement (year 1).

$$\begin{aligned}
 MTURN_{Year-1} = & \alpha_0 + \beta_1 \cdot MREST + \\
 & + \beta_2 \cdot FHD + \beta_3 \cdot FDD + \\
 & + \beta_4 \cdot FHDMREST + \\
 & + \beta_5 \cdot FDDMREST + \beta_6 \cdot FE + \\
 & + \beta_7 \cdot SHCON + \beta_8 \cdot ROA + \\
 & + \beta_9 \cdot STOCK + \beta_{10} \cdot SIZE + \\
 & + \beta_{11} \cdot LEV + \beta_{12} \cdot GROWTH + \varepsilon.
 \end{aligned} \quad (2)$$

$$\begin{aligned}
 MTURN_{Year0} = & \alpha_0 + \beta_1 \cdot MREST + \\
 & + \beta_2 \cdot FHD + \beta_3 \cdot FDD + \\
 & + \beta_4 \cdot FHDMREST + \\
 & + \beta_5 \cdot FDDMREST + \beta_6 \cdot FE + \\
 & + \beta_7 \cdot SHCON + \beta_8 \cdot ROA + \\
 & + \beta_9 \cdot STOCK + \beta_{10} \cdot SIZE + \\
 & + \beta_{11} \cdot LEV + \beta_{12} \cdot GROWTH + \varepsilon.
 \end{aligned} \quad (3)$$

$$\begin{aligned}
 MTURN_{Year+1} = & \alpha_0 + \beta_1 \cdot MREST + \\
 & + \beta_2 \cdot FHD + \beta_3 \cdot FDD + \\
 & + \beta_4 \cdot FHDMREST + \\
 & + \beta_5 \cdot FDDMREST + \\
 & + \beta_6 \cdot FE + \beta_7 \cdot SHCON \\
 & + \beta_8 \cdot ROA + \beta_9 \cdot STOCK \\
 & + \beta_{10} \cdot SIZE + \beta_{11} \cdot LEV \\
 & + \beta_{12} \cdot GROWTH + \varepsilon.
 \end{aligned} \quad (4)$$

4. RESULTS AND ANALYSIS

4.1. Univariate analysis

Table 1 reports the differences of management turnover between mandatory restatement firms and their matched control firms. The results show that mandatory restatement firms compared to non-restatement firms have more frequent man-

Table 1. Management turnover in mandatory restatement firms versus control firms

Year	MT			
	Mandatory	Control	t value	z value
-1	0.54	0.22	3.010***	-2.857***
0	0.49	0.19	2.809***	-2.685***
+1	0.27	0.27	0.000	0.000

Notes: 1. Asterisks *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively. 2. Management turnover (MT) is examined in year -1, year 0 and year +1, where 0 is the year of mandatory restatement announcement.

agement turnover in year -1 and year 0. The findings indicate that mandatory restatement firms compared to control firms appear to have more frequent management turnover in one year before the year of mandatory restatement announcement and in the year of mandatory restatement announcement.

4.2. Multivariate analysis

Regarding hypothesis 1, the results indicate that the coefficient of *FHDMREST* is not significantly positive no matter the observed year is. This shows that hypothesis 1 is not supported. However, the results show that the coefficient of *FDDMREST* is significantly negative in year

+1, showing that hypothesis 2 is supported. The findings indicate that family members serving as directors tend to use their influence from directorship to deter management turnover in one year after the year of mandatory restatement announcement. The results are reported in Table 2.

Greene (1999) asserts that calculating the marginal effects of independent variables provides a better understanding and captures more economic meaning on coefficients in logistic regression models. Taking Greene's (1999) suggestions into account, in the examination on the hypotheses, this paper further examines the effect of management turnover by adopting logistic regression models with observing marginal ef-

Table 2. Management turnover in a given year – logistic regression

Variable	Exp	Year -1	Year 0	Year +1
		MT	MT	MT
INTERCEPT		0.476	0.273	-3.295
MREST	+	2.332**	1.840**	1.568*
FHD	+/-	-0.518	-0.189	0.728
FDD	+/-	1.008	0.450	1.396*
FHDMREST	+	-1.193	-0.056	-1.429
FDDMREST	-	0.136	-0.269	-1.808*
FE	+/-	-0.967	-3.334**	-1.981
SHCON	+/-	0.006	0.054	0.016
ROA	-	-0.043**	-0.017	0.020
STOCK	-	0.003	-0.003	-0.024**
SIZE	+/-	-0.497**	-0.412	0.199
LEV	+/-	1.200	-0.093*	-0.377
GROWTH	+/-	-0.001	-0.004	-0.004
LR stat.		20.72	17.24	14.01
Probability		0.0546*	0.1406	0.3001
Pseudo-R2		0.2758	0.1757	0.1515

Notes: 1. Asterisks *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively. 2. Management turnover (MT) is examined in year -1, year 0 and year +1, where 0 is the year of mandatory restatement announcement.

Table 3. Management turnover in a given year – independent variables with marginal effect

Variable	Exp	Year -1		Year 0		Year +1	
		MT		MT		MT	
		dy/dx	z	dy/dx	Z	dy/dx	z
MREST	+	-0.234	0.681	0.555	1.61*	0.550	1.89
FHD	+/-	-0.002	-0.26	-0.018	-2.94***	-0.006	-1.21
FDD	+/-	-0.236	-0.34	0.689	0.626	1.396	1.71**
FHDMREST	+	0.002	0.28	0.002	0.23	-0.003	-0.48
FDDMREST	-	0.871	1.02	-0.363	-0.54	-0.773	-1.61*
MDIR	+/-	-0.162	-0.35	-0.608	-1.40*	-0.393	-1.21
SHCON	+/-	0.871	-0.49	0.034	2.29**	0.009	1.17
ROA	-	-0.162	-1.82**	-0.004	-0.59	0.004	0.82
STOCK	-	-0.007	0.00	0.001	0.57	-0.004	-2.44**
SIZE	+/-	0.000	-1.68**	-0.107	-2.56**	0.021	0.49
LEV	+/-	0.334	0.77	0.028	0.09	-0.024	-0.10
GROWTH	+/-	0.002	0.31	-0.002	-1.42*	-0.001	-1.26
LR stat.		20.72		17.24		14.01	
Probability		0.0546*		0.1406		0.3001	
Pseudo-R2		0.2758		0.1757		0.1515	

Notes: 1. Asterisks *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively. 2. Management turnover (MT) is examined in year -1, year 0 and year +1, where 0 is the year of mandatory restatement announcement.

Table 4. Turnover before, in and after the year of mandatory restatement announcement

Fixed-effects logit model				
Variable	Exp	Year -1	Year 0	Year +1
INTERCEPT		-	-	-
MREST	+	-1.003	2.982*	3.809**
FHD	+/-	-0.014	-0.088**	-0.046
FDD	+/-	-1.417	3.654*	4.970**
FHDMREST	+	0.008	0.007	-0.015
FDDMREST	-	3.571	-1.599	-5.082*
MDIR	+/-	-0.098	-3.648*	-3.779*
SHCON	+/-	-0.023	0.167***	0.073
ROA	-	-0.055**	-0.010	0.039
STOCK	-	0.000	0.007	-0.030**
SIZE	+/-	-0.389*8	-0.544*	0.267
LEV	+/-	1.344	0.227	-0.304
GROWTH	+/-	0.002	-0.010	-0.009
Fixed effect		Included	Included	Included
LR stat.		23.83	26.52	16.31
Probability		0.0328**	0.0145**	0.2950
LM test Chi-sq		0.00	0.00	0.00

Notes: 1. Asterisks *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively. 2. Management turnover (MT) is examined in year -1, year 0 and year +1, where 0 is the year of mandatory restatement announcement.

fects of independent variables reported in Table 3. Table 3 reports the marginal effects (dy/dx) of all dependent variables, the corresponding z-statistics and the percentage increase in the estimated probability of management turnover in a given year. The results indicate that the marginal effect of *FHDMREST* is not significantly positive in the logistic regression of management turnover no matter the observed year is. However, the results indicate that the marginal effect of *FDDMREST* is also significantly negative in the logistic regression of management turnover in year +1. The results are consistent with the major analysis reported in Table 2. Hypothesis 2 is further supported here.

In order to further confirm the hypotheses, this paper considers the industry effect and time effect. Some variations in management turnover and omitted variables problems in logistic regression models without adding fixed effect may exist in

particular industries and particular years. Hence, firstly, this paper includes industry and year variables to examine the hypotheses in one year before the year of mandatory restatement announcement, the year of mandatory restatement announcement and one year after the year of mandatory restatement announcement.

Due to the majority of electronic industry in the sample, this paper creates a dummy industry variable: *INDUSTRY* to measure industry effects. *INDUSTRY* equals to 1, if the firm is in electric industry, and 0 otherwise. Besides, the effects of mandatory financial restatements on management turnover are likely to increase after the implementation of the independent directors system in 2002. Accordingly, in order to measure time effects, this paper creates a dummy variable: *YEAR*. *YEAR* equals to 1 if the year is in or after year 2002 and 0 otherwise. The results are reported in Table 4.

CONCLUSION

The increasing outbreak of accounting scandals leads to the reform of corporate governance practices all around the world. Firm executives, directors and auditors have responsibilities to assure financial reporting quality. Hence, once accounting scandals emerge, whether they are punished by the firms with accounting scandals receives great concern from the firms' stakeholders. Financial restatements represent poor financial reporting, which can bring significantly negative impact, such as the negative reactions to stock markets (Palmrose et al., 2004; Badertscher and Burks, 2011) and the increase of debt capital (Hirbar and Jenkins, 2004). The most direct punishment effect on the persons who should be responsible for assuring poor-quality financial reporting is to replace them.

Prior studies suggest that firm executives, directors and auditors should be replaced, when restatements are announced (Arthaud-Day et al., 2006; Desai et al., 2008). However, past research is almost from developed countries such as America, ignores the nature of restatements and rarely considers the roles of family members play in affecting the turnover of persons who are involved in restatements. Despite of the evidence of Xiaoxiang et al. (2013), their studies are built on examining individual managers rather than a management team. In addition, based on the suggestions of Greene (1999), it's better to examine the marginal effects of independent variables so as to capture more economic meaning on coefficients in logistic regression models. Hence, this paper adopts logistic regression models along with observing marginal effect of independent variables to examine whether family dominance (family shareholding and family directorship) affects the relationship between mandatory restatements and management turnover in different years around the year of mandatory restatement announcement. The findings show that only family directorship weakens the relationship between mandatory restatements and management turnover after one year of the year of mandatory restatement announcement. Future research can further examine how mandatory restatements are related to the turnover of directors or auditors by considering the roles that family members play and proceeding cross-country studies.

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