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RESEARCH ARTICLE

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The Relation between Abnormal Main Fund Movements and Subsequent Earnings Management: Political Costs and Political Connections

Abstract Movement of major fund[1] flows has great impact on capital markets, especially in China. This study investigates the relationship between abnormal main fund movements and firm's earnings management behavior, specifically, whether the abnormal main fund movements cause firms to keep a low profile for "self-protection" from being detected by the government. The empirical results of this study suggest that: (1) The mandatory disclosure of the "Top-ten circulating stockholders" requirement does not only reduce information asymmetry between investors and listed firms, but also strengthens and improves the efficiency of related government regulations in detecting disclosure of false information. This, in turn, increases the risk of being detected for firms with earnings management activities. (2) After abnormal main fund movements, relevant firms significantly reduce the level of earnings management to avoid attention from the public and regulatory agencies. (3) Using political connections as a proxy for the "shield effect" to mask political cost, we show that the negative relation between abnormal main fund movements and earnings management exists only for the subsample of firms without political connections. This paper provides a new angle for political cost study, and suggests that

[1] The so-called "main funds" refer to funds that can affect stock prices in the medium or short term. They are usually institutional investors and individual investors with significant funds and relative superiority in information analysis.

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traditional political cost hypothesis should be further generalized.

Keywords abnormal main fund movements, political cost hypothesis, political connections, earnings management

1 Introduction

Many studies on the developed markets have shown that investors with substantial transactions play important roles in affecting capital market movements, but also have certain impact on the financial behavior of listed firms. For example, Bushee (1998) finds that if institutional investors with a high level of ownership in a firm engage in high turnover and the momentum trading of relevant securities, myopia such as cutting research and development (R&D) investment may result. The findings of Bushee (1998) are of great benefit to understand how the behavior of capital market participants affect firms' financial reporting.

When it comes to China, a developing country in transition, the pricing mechanism of the stock market is still less effective due to the weakness of institutional environment. Major investment funds with substantial transactions have the advantage over small and medium-sized investors. Thus, every trading movement of the so-called "main funds", no matter in terms of net inflows or outflows, is undoubtedly a bellwether of the whole market, closely watched by all stockholders in China. The so-called "main funds" refer to funds that can affect stock prices in the medium or short term. They are usually institutional investors and individual investors with significant funds and relative superiority in information analysis. The buying and selling in great quantities by main funds are usually referred to as abnormal main fund movements. The behavior of main funds has a great impact on the development of capital markets and investors' wealth, as main funds can not only directly affect the rise and fall of individual stock prices, but also indirectly draw the attention of regulatory agencies. Hence, main funds attract the attention of medium and small investors and have become a unique phenomenon in China's capital markets. In the context of China's rapid economic growth and financial vulnerability, it is of great theoretical and practical significance to carry out studies on this issue, so as to reduce financial risks, to accelerate the steady development of the stock market, and to protect medium and small investors. However, there have been few academic studies on the economic consequences of main fund movements.

In China, due to widespread attention from investors and public media, listed firms with abnormal main fund movements, along with their financial information, can easily become the focus of regulatory agencies. Consequently, the event firms are more likely to be under potential pressure from this scrutiny. If any information disclosed by listed firms is found to be unreliable, the enterprise will not only suffer negative effects to their reputation, but also may be subject to legal penalties. Reputation loss and potential regulation will inevitably result in higher political costs to firms (Watts and Zimmerman, 1978, 1986). For example, in December 2014, the China Securities Regulatory Commission (CSRC) initiated an investigation into a group of main funds on suspicion of manipulating the stock price of 18 firms, including the Cloud Live Technology Group (002306), Bai Yuan Trousers (002640), Xing Min Wheel (002355), etc. Zhang Xiaojun, a spokesman of the CSRC, reiterated the official line, “Stock price manipulation violates the ‘fair, open and just’ principle, damages the interests of investors, and triggers systemic risk of capital markets. Thus it is an illegal activity explicitly banned by the ‘Securities Law’ and ‘Criminal Law’ of China, and also a check point for the CSRC.” Furthermore, after the CSRC’s investigation of those main funds, the financial information of 18 listed firms also came under severe scrutiny. For example, the Cloud Live Technology Group was also investigated by the CSRC on suspicion of illegal information disclosure. If verified, the firm’s shares will be subject to special treatment (*ST) risk admonition and suspended by the Shenzhen Stock Exchange.[2] This shows that both the main funds and firms involved are at risk of being investigated by the CSRC, indicating that the listed firms experiencing abnormal main fund movements are more likely to be cautious about financial disclosure and keep a low profile with regards to the production of earnings.

Therefore, we introduce the generalized paradigm of “political cost hypothesis” in studying the relationship between sensitive information and firms’ earnings management. A related interesting topic here is, will the listed firms in the spotlight of capital markets tend to keep a low profile for “self-protection”? The abnormal main fund movements are a sensitive issue in capital markets—public media is willing to report on abnormal main fund movements to cater to investors, while regulatory agencies may use public media to detect fraud

[2] See: http://stock.hexun.com/2014-12-23/171675150.html

and strengthen regulatory efficiency. Accordingly, enterprises are motivated to circumvent potential regulations and avoid reputation loss due to abnormal main fund movements. Here, the abnormal main fund movements could serve as excellent “quasi-natural experiments”.

The contributions of this study are as follows: (1) Based on Bushee (1998) who concludes that the trading behavior of institutions with large stockholdings can encourage myopia, we provide further empirical evidence to understand the economic consequence, i.e., we validate the impact of “abnormal main fund movements”, which can easily attract the attention of investors and financial media in China, on earnings management; （2）we compare the behavior of firms with political connections and firms without political connections when they experience abnormal main fund movements, and find that political connections have a “shield effect” that reduce political cost; (3) we select a common scenario to examine the applicability of political cost hypothesis in China (Ye, 2012), by selecting a common scenario to examine the applicability of political cost hypothesis in China. The setting we choose is different from rare events (such as the case of multinational giants’ monopoly, parliamentary elections, etc.) described in prior literature. Nearly all listed firms may encounter the entering and exiting of main funds in secondary markets. This setting provides a new perspective for extending the study area of “traditional political cost hypothesis”. The remainder of this paper is organized as follows. Section 2 reviews related literature and Section 3 analyzes the special institutional background of China, and puts forward our hypotheses. Section 4 addresses research design, including sample selection, model specification and variables; Section 5 and 6 respectively report empirical results and robustness checks; Section 7 concludes the paper.

2 Literature Review

2.1 Political Cost and Earnings Management

Since Watts and Zimmerman (1978) first proposed the theory of “political cost hypothesis”, subsequent studies have tested the applicability of “political cost hypothesis” in different situations. The consensus is that both the threat of potential regulation and competition for preferential policies could form corporate political costs (Hall, 1994; Han and Wang, 1998; Jones, 1991; Key, 1997). However, the conclusions of prior studies are inconsistent. The reasons lie in two points: On the one hand, most studies are confined to special industries, e.g., the cable TV industry, oil refining, etc. However, the nature of industries is relative stable and significant changes can hardly be observed over a short period, thus the traditional political cost hypothesis can only be applied to cross-sectional analysis instead of panel data. It may be one of the unavoidable defects of traditional political cost hypothesis. On the other hand, although using rare political events, e.g., antitrust investigations, import relief investigations, etc., may help us observe changes in firms' behavior, this raised the dilemma that the conclusions lack universality.

During China's transition period, a wider range of political costs confront listed firms than can be observed in the west, such as a variety of industry regulation and local investment preferential policies, etc. (Zhang, 2008), and thus, the majority of domestic enterprises have strong political sensitivities (Wei, 2000). In addition, there is also a unique political cost in China embedded in the legal enforcement process, which has significant levels of randomness (Xu et al., 2013). However, studies on "political cost hypothesis" in China also use firm size (e.g., total assets or income scale), rare events (e.g., anti-dumping investigations), as well as special industries (e.g., the national protection industries) as proxies for political cost. These studies' conclusions not only differ from each other, but are also vulnerable to criticism that they lack universality. To develop the "political cost hypothesis", we need to jump out of the traditional settings and seek a wider path suitable for explaining more economic settings (Ramanna and Roychowdhury, 2010).

With the growing influence of the public media, it is much easier for high-profile events to raise concerns amongst stakeholders. Especially in capital markets, sensitive information brings additional risks to regulatory agencies, pushing them to quickly respond to avoid "administrative omission or nonfeasance". Under these circumstances, regulatory departments are more likely to apply severe penalties on responsible firms (Watts and Zimmerman, 1986; Snyder and Stromberg, 2010). Accordingly, the listed firms are more transparently exposed to regulations (Craven and Marston, 1997; Pan et al., 2008). If scandals are exposed, firms are more likely to be investigated by regualtory agencies, such as taxation, industry and commerce, securities, etc. (Bowman and Haire, 1976; Eng and Mak, 2003). Thus, sensitive information triggers external supervision, steeply driving up the political costs of listed firms with loopholes in information disclosure.

2.2 The "Shield Effect" of Political Connections

Following the "law and finance" theory proposed by La Porta et al. (1997, 2000, 2001), scholars have introduced institutional factors, such as politics, religion, culture, etc. (Allen et al., 2005; Stulz and Williamson, 2003; Riahi-Belkaoui, 2004) to explain a firm's financial behavior. Political connections is an important branch of "law and finance". Management teams with special political connections may enjoy a "protective umbrella" to deal with external shocks, especially when firms are dealing with potential regulatory risks.

As China's market economy is still developing, political connections objectively exist in various firms, and is particularly common in listed firms (Zhang and Zhang, 2005; Luo and Liu, 2009). Political connections have been shown to have significant correlation with a Chinese firm's performance and market value, investment efficiency, and equity structure (Chen et al., 2011), etc. In addition to the studies above, some scholars find that political connections are highly correlated with the behavior mode of Chinese listed firms when they cope with regulatory agencies. Anderson (2000) and MacNeil (2002) point out that the CSRC lacks independence in China's administrative system, and that it is vulnerable to intervention from peer or superior government departments. Xu et al. (2013) further find that political connections can reduce the CSRC's regulation-enforcing efficiency by reducing the timeliness of their investigations into the illegal actions of firms and interfering in the decisions of top management. Political connections can not only avoid the "grabbing-hand" of authorities (Fisman, 2001; Johnson and Mitton, 2003; Shleifer and Vishny, 1994), but also gain potential benefits or protection from the administration (Krueger, 1974; Zhang et al., 2013; Yang et al., 2014). These studies suggest that political connections have a certain "shield effect" on Chinese firms. By contrast, it is more difficult for listed firms without political connections to benefit from this "shield". That is why firms actively seek private connections with authorities or related organizations by consuming internal wealth (Wu, 2009).

In light of prior studies, if firms are thrust into center-stage and the spotlight of capital markets, their motivation to seek self-protection may become more obvious, so as to mitigate the potential risks brought about by spotlight events. From a broader perspective, the essence of examining the "shield effect" of political connections on firms' production of financial information supplies as collaborate evidence, which could be used to test the applicability of the generalized "political cost hypothesis" in the context of China.

3 Institutional Environment and Hypothesis Development

The mandatory disclosure of information about main funds' movements provides clues to the capital markets of China. Will the sensitive information bring more political costs to event firms? We should consider this question in the context of national conditions in China. As China's stock market is funds-driven, the rise and fall of stock prices not only depends on firms' quality and financial information, but also on the entry and exit of funds in the market. The followers of fund movements include, but are not limited to, financial analysts and regulatory agencies.

Firstly, financial analysts have been regarded as important external monitors of firms. Analysts' substantial knowledge of corporate financial statements and their regular interaction with management provide them with good opportunities to detect fraud (Dyck et al., 2010; Wang, 2013). Because medium and small investors are alert to the changes of main funds and pay more attention to earnings disclosed by the event firms, plenty of professional financial analysts in China are competing to report the movements of main funds in order to meet the information needs of the public.

Secondly, agencies are in a passive position when they want information about their regulatory targets, leading to low enforcement.[3] Studies from Shen et al. (2004), Chen and Gao (2005), Zhang and Zhu (2008), Pistor and Xu (2005), etc. find that both the CSRC supervision efficiency and the level of investor protection in China are lower than that in western countries. Hardly could CSRC detect fraud immediately. Given that the regulatory structure is difficult to change in the short run, the regulatory agencies must seek other ways to improve enforcement efficiency, especially the "mass line", which is helpful to expose the problems of listed firms. The disclosure of sensitive information has greatly

[3] See: http://paper.people.com.cn/rmrb/html/2011-10/20/nbs.D110000renmrb_01.htm

reduced information asymmetry between regulatory agencies and public corporations (Li and Shen, 2010; Dyck and Zingales, 2002). At present, many regulatory agencies in China have set up specialized positions for supervising public opinion, so as to capture useful information diffused through mass media. Media reports on the main funds and the public response are delivered to regulatory agencies. It makes financial fraud detection more targeted and more efficient. On this basis, we put forward Presupposition 1A and Presupposition 1B.

Presupposition 1A. After experiencing abnormal main fund movements, listed firms are tracked by more analysts than before.
Presupposition 1B. After experiencing abnormal main fund movements, listed firms have a higher probability of being investigated by the CSRC than before.

Enterprises will adjust their financial behavior according to the political cost. The higher the political cost, the less likely for enterprises to boast about earnings (Han and Wang, 1998; Monem, 2003; Leuz et al., 2003; Bushman et al., 2004; Bushman and Piotroki, 2006; DeFond et al., 2007). In China, scholars have also conducted a similar series of studies. For example, in looking at the petrochemical industry, Zhang (2008) finds that the political cost deriving from oil price fluctuations garners attention, and thus, petrochemical enterprises significantly reduce their earnings management. Avoiding political costs (i.e., evading potential scrutiny or investigations from regulatory agencies) works as an important motive that affects the earnings management of Chinese listed firms. However, only a few scholars extend traditional political theories to non-political events. For example, Ye et al. (2013) find that the annual Forbes Rich List may arouse additional political costs, and the entrepreneurs on the rich list are motivated to significantly reduce the level of earnings management.

As mentioned in our presupposition, abnormal main fund movements draw wide attention in China, particularly from financial analysts and from regulatory agencies. Once the main funds of a firm move abnormally, public attention fixes on the financial information of the event firm, and thus, irregularity in financial reports is more likely to be detected. Under this pressure, the listed firms with abnormal main fund movements face the risk of being regulated and therefore have greater motivation to prepare financial reports conservatively to avoid the political costs brought by the attention garnered from abnormal main fund movements. Therefore, the event firm has to behave itself and keep a low profile after experiencing abnormal main fund movements by standardizing financial information production and reducing earnings management, so as to avoid potential punishment and reputation loss.

Hence, we put forward Hypothesis 1.

Hypothesis 1. After experiencing abnormal main fund movements, the listed firms keep earnings at a lower level than before.

Abnormal main fund transactions bring extra political costs to firms, but the political cost varies in different kinds of firms. If the heterogeneous factors can be identified, the explanation for the political cost hypothesis will be more persuasive. As is mentioned in the literature review, it is a worldwide phenomenon that political connections have an impact on listed firms (Ficcio et al., 2006). In China, it is more prominent due to the characteristics of the regulatory system. At present, the CSRC and local government share responsibility for supervising listed firms. This institutional arrangement superficially reinforces the regulation, but actually creates space for local protectionism (Clarke, 1996; Xu et al., 2013). If a listed firm has special resources such as political connections, it can protect itself against regulations from the CSRC. By contrast, a listed firm without political connections may feel more uneasy after experiencing abnormal main fund movements, and it may make concessions to avoid trouble by providing the public with more conservative financial information, in order to reduce potential reputation loss and regulatory pressure as much as possible.

In conclusion, the political connections will make a difference in the political cost faced by listed firms. The attack of the “spear” (political cost) is likely to be weakened by the protection of the “shield” (political connections). Hence, we put forward Hypothesis 2.

Hypothesis 2. Ceteris paribus, the earnings management level of firms without political connections declines more than that of the firms with political connections after experiencing abnormal main fund movements.

4 Sample and Research Design

4.1 Sample and Data

We collected the lists of the top 10 shareholders from the Wind Financial Database (WIND)[4] from the first quarter of 2004 to the last quarter of 2011, and made pairwise comparisons between adjacent lists. The names of 714 firm-years were not available from the WIND. We searched for the original quarterly reports from the Cninfo Information Network (CNINFO) to fill in the missing values.

Our sample period is from 2001–2014, based on the event period of 2004–2011. As we are primarily interested in the changes in earnings management around the time of abnormal main fund movement events, we examine the change in earnings management in the 3 pre-event years vs. the 3 post-event years. Thus, the sample period should be (–3, +3) years based on the event period. On the one hand, because a majority of listed firms did not disclose financial statements until 2004, our sample period begins from the three years before 2004, i.e., starting in 2001. On the other hand, since we could only update financial variables to 2014, our manual collection of events stops in 2011, three years before 2014.

We obtained the other required financial data and stock returns from the China Stock Market and Accounting Research (CSMAR) database, and then excluded: (1) firms which encountered repeated abnormal main fund movements in two or more fiscal years, (2) firms without abnormal main fund movements that therefore did not match our event group (firms with abnormal main fund movements), (3) firms releasing fewer than 4 quarterly reports within one fiscal year, (4) financial services firms, (5) “Grey” investors with existing or potential relationships with listed firms, including subsidiaries, affiliated individuals, and institutions with cooperative partnerships with firms (e.g., banks, trust departments, and insurance companies that are listed in firms’ financial reports) (Brickley et al., 1988; Guercio and Hawkins, 1999), (6) firms having a history of financial restatements, (7) observations without sufficient financial information to calculate related variables. The final sample consists of 5,082 firm–year

[4] The Wind Financial Database (WIND) is a leading integrated service provider of financial data, information, and software. It provides Chinese financial market data and information to analysts, fund managers and traders, with full coverage of equities, bonds, funds, index, warrants, commodity futures, foreign exchanges, and the economy.

observations, including 366 firms with abnormal main fund movements (event group) and 366 firms without abnormal main fund movements (control group). To avoid extreme values, we winsorized all the continuous variables at 1% in both tails.

4.2 Measures

(1) Dependent Variables

To test the presupposition, we developed two empirical proxies. (1) The possibility of being detected by the CSRC (*Fraud detection*), including the possibility of being detected in the current period (*Curyear*), being detected in the previous three years ($Preyear_{1\text{-}3}$), and being detected in the post three years ($Postyear_{1\text{-}3}$). (2) The number of reports released by financial analysts on a firm during the fiscal year (*Analysts*). Furthermore, we distinguished analysts into top-ranked star analysts (*Star analysts*) and ordinary analysts (*Non-star analysts*), and expected star analysts to have greater interest in abnormal main fund movements.

For the main test, we needed to select a proxy for earnings management. It is advisable to prioritize the cross-sectional modified Jones model when using the discretionary accruals models in research on earnings management in the Chinese context (Huang and Xia, 2009). Consequently, we used a modification of Jones's (1991) residual accruals ("*Da_MJones*") as the main proxy for earnings management, following Dechow et al. (1995).

Models (1) and (2) denote the residuals obtained by regressing total accruals on fixed assets and revenue growth, excluding growth in credit sales, for each country and year. Where $TA_{i,t}$ is total accruals, measured as net income minus cash flows from operations; $A_{i,t-1}$ is total assets of firm i at year t–1; $\Delta REV_{i,t}$ is the change in revenue of firm i from year t–1 to t; $\Delta AR_{i,t}$ is the change in accounting receivables of firm i from year t–1 to t; $PPE_{i,t}$ is fixed asset of firm i at year t.

$$TA_{i,t} / A_{i,t-1} = \alpha_0[1 / A_{i,t}] + \alpha_1[(\Delta REV_{i,t} - \Delta AR_{i,t}) / A_{i,t}] + \alpha_2[PPE_{i,t} / A_{i,t}] + \varepsilon_{i,t}. \tag{1}$$

$$DA_{i,t} = TA_{i,t} / A_{i,t-1} - \alpha_0[1 / A_{i,t}] - \alpha_1[(\Delta REV_{i,t} - \Delta AR_{i,t}) / A_{i,t}] - \alpha_2[PPE_{i,t} / A_{i,t}]. \tag{2}$$

We define the fitted vales obtained from Model (1) as the non-discretionary accruals, while the discretionary accruals is determined by Model (2). As both an extreme high and extreme low $DA_{i,t}$ may reflect earnings management (Bergstresser and Philippon, 2006), we use the absolute value of $DA_{i,t}$. to represent our main proxy, $Da\_MJones_{i,t}$.

(2) Independent Variables

If the stockholdings of Top 10 shareholders increase or decrease by more than 50% between two adjacent quarterly reports, abnormal main fund movements are assumed to have occurred. As discussed in the "Sample and Data" section, firms encountering repeated movements (in at least two fiscal years) have been deleted from our sample. *Mfund* is an indicator variable, which equals 1 if a firm encounters abnormal main fund movements in "one and only one" fiscal year during the whole event period from 2004 to 2011, and equals 0 otherwise.

Mfund includes three types of events. (1) *Buyin* equals 1 if the stockholdings of Top 10 shareholders increase by more than 50% in at least one quarter in a fiscal year, but in the same fiscal year, there is not a quarter in which the stockholdings of Top 10 shareholders decrease by more than 50%. *Buyin* equals 0 otherwise. (2) *Sellout* equals 1 if the stockholdings of Top 10 shareholders decrease by more than 50% in at least one quarter in a fiscal year, but in the same fiscal year, there is no quarter when the stockholdings of Top 10 shareholders increase by more than 50%. *Sellout* equals 0 otherwise. (3) *Handover* equals 1 if the stockholdings of Top 10 shareholders increase by more than 50% in at least one quarter in a fiscal year, and the stockholdings of Top 10 shareholders decrease by more than 50% in at least one quarter in the same fiscal year. *Handover* equals 0 otherwise.

(3) Moderating Variable

Following the literature (Firth et al., 2009), a firm is defined as politically connected if either the CEO or the chairman is a former or current member of the Chinese People's Congress, the Political Consultative Conference, or a government official ($Pc = 1$), and non-politically connected otherwise ($Pc = 0$).

(4) Control Variables

Following Massa et al. (2015), our control variables are the logarithm of firm size (*Size*), financial leverage (*Lev*), return of assets (*Roa*), stock return volatility (*Cret_volatility*), institutional ownership (*Totinsholdper*), list age (*Listage*), analysts coverage (*Analysts coverage*), the book-to-market ratio (*Bm*), annual stock return (*Ret*), turnover ratio (*Turnover*), dual role of board chairmen (*Dual*)、ratio of independent directors (*Indir*), law environment index (*Lawscore*), national protected industries (*Protected*). We also include dummy variables for year (*Year*) and industry (*Ind*) to avoid heteroskedasticity.

A detailed definition of these variables is provided in Table 1.

4.3 Research Design

Given that there may exist an endogenous problem between abnormal main fund movement events and firms' earnings management behavior, we use a matched sample and adopt a Difference-in-Difference approach (DID) in our main test, under the assumption that other external shocks influence both groups. By taking the firms with abnormal main fund movements as the treatment group, and matching them with the firms without abnormal main fund movements which have similar basic characteristics, we can exclude the potential endogenous problem threatening the effectiveness of our model.

We use Models (3) and (4) to examine our presupposition, i.e., whether abnormal main fund movements increases political costs. Shown in Model (3), we rely on a logistic regression of *Fraud detection* on abnormal main fund movements (*Mfund*), and firm-level control variables (*X*), as well as unreported industry and year fixed effects. Similarly, we run an OLS regression of *Analysts coverage* on abnormal main fund movements (*Mfund*) and other variables, shown as Model (4). *Post* is a dummy variable equal to 1 for (0, 3) years after the abnormal main fund movement, and equals 1 for (–3, –1) years before the event year. A significantly negative coefficient on *Mfund*×*Post* indicates that firms with abnormal main fund movements are more likely to attract investigation from the CSRC and coverage from financial analysts.

$$\begin{aligned} \mathit{Fraud\ detection}_{i,t} = \alpha + \beta_1 \mathit{Mfund}_{i,t} + \beta_2 \mathit{Post}_{i,t} + \beta_3 \mathit{Mfund}_{i,t} \\ \times \mathit{Post}_{i,t} + \beta_4 X_{i,t} + \varepsilon_{i,t}. \end{aligned} \tag{3}$$

Table 1 Variable Definitions

	Definition	Source	Period
Dependent variables in the presupposition test			
Analysts coverage	Number of reports released by financial analysts on the firms.	CSMAR	2001–2014
Fraud detection	Likelihood of corporate fraud detection by CSRC or exchange.	CSMAR	2001–2014
Dependent variables in the main test			
Da_MJones	Modification of Jones's (1991) residual accruals (Dechow et al., 1995).	CSMAR	2001–2014
Independent variables			
Mfund	Dummy variable equals 1 if a firm encounters abnormal main fund movements in only one fiscal year during the period from 2004 to 2011, and equals 0 otherwise.	Company quarterly reports	2004–2011
Post	Dummy variable equals 1 for (0, 3) years after the event year, and equals 1 for (–3,–1) years before the event year.	Company quarterly reports	2001–2014
Buyin	Dummy variable equals 1 if there is at least one quarter in one fiscal year that the stockholdings of Top 10 shareholders increase more than 50%, and 0 otherwise.	Company quarterly reports	2004–2011
Sellout	Dummy variable equals 1 if there are one quarter at least in one fiscal year that the stockholdings of Top 10 shareholders decrease more than 50%, and 0 otherwise.	Company quarterly reports	2004–2011
Handover	Dummy variable equals 1 if there is at least one quarter in one fiscal year that the stockholdings of Top 10 shareholders increase more than 50%, and, in the same fiscal year, there is at least one quarter in one fiscal year that the stockholdings of Top 10 shareholders decrease more than 50%, and 0 otherwise.	Company quarterly reports	2004–2011

(*To be continued*)

(*Continued*)

	Definition	Source	Period
Moderating variables			
Pc	Dummy variable equals 1 if either the CEO or chairman is a former or current member of the Chinese People's Congress, the Political Consultative Conference, or a government official, and 0 otherwise.	CSMAR	2001–2014
Control variables			
Size	Firm size.	CSMAR	2001–2014
Lev	Financial Leverage.	CSMAR	2001–2014
Roa	Return of assets.	CSMAR	2001–2014
Cret_volatility	Stock return volatility.	CSMAR	2001–2014
Totinsholdper	Institutional ownership.	WIND	2001–2014
Listage	The difference between the observation year and the founding year.	CSMAR	2001–2014
Bm	The book-to-market ratio.	CSMAR	2001–2014
Ret	Annual stock return.	CSMAR	2001–2014
Turnover	Turnover ratio.	CSMAR	2001–2014
Dual	Dual role of board chairmen.	CSMAR	2001–2014
Indir	Ratio of independent directors.	CSMAR	2001–2014

(*To be continued*)

(*Continued*)

	Definition	Source	Period
Lawscore	Law environment index.	China's Marketization Index 2011	2001–2009[5]
Protected	National protected industries.	CSMAR	2001–2014
Ind	Industry dummy variables according to the classification standard issued by CSRC in 2001.	CSRC	2001–2014
Year	Year dummy variables.	CSMAR	2001–2014
Additional variables in the self-selection model in the robustness test			
Bull	Dummy variable equals 1 if the abnormal main fund movements occur in the upward phase of the composite indices (Shanghai Stock Market or Shenzhen Stock Market), and 0 otherwise.	CSMAR	2004–2011
Indclimate	Monthly indicators of industry climate.	DRC Industry Climate Monitoring System	2004–2011
Mve	Natural logarithm of the firm's market value at the end of the year.	CSMAR	2004–2011
Stdret	Annual standard deviation of daily return of some stocks.	CSMAR	2004–2011
Debtcost	Cost of debt	CSMAR	2004–2011

[5] For those years 2010–2014 without information, we extrapolate from 2009, the nearest year for which such information is available.

$$Analysts\ coverage_{i,t} = \alpha + \beta_1 Mfund_{i,t} + \beta_2 Post_{i,t} + \beta_3 Mfund_{i,t} \times Post_{i,t} + \beta_4 X_{i,t} + \varepsilon_{i,t}. \quad (4)$$

Model (5) is adopted to examine the impact of abnormal main fund movements on earnings management. It is a DID regression of a firm's modified Jones (1991) residual accruals (*Da_MJones*) on abnormal main fund movements (*Mfund*) and firm-level control variables, as well as unreported industry and year fixed effects. A significantly negative coefficient on *Mfund*×*Post* indicates that firms with abnormal main fund movements are more likely to reduce their earnings management.

$$Da\_MJones_{i,t} = \alpha + \beta_1 Mfund_{i,t} + \beta_2 Post_{i,t} + \beta_3 Mfund_{i,t} \times Post_{i,t} + \beta_4 X_{i,t} + \varepsilon_{i,t}. \quad (5)$$

Model (6) tests the moderating effect of political connections. *Pc* is a dummy variable equal to 1 if a firm has political connections with governments. A significantly positive coefficient on *Mfund*×*Post*×*Pc* indicates that firms with political connections are less likely to reduce their earnings management after abnormal main fund movements.

$$\begin{aligned} Da\_MJones_{i,t} = {} & \alpha + \beta_1 Mfund_{i,t} + \beta_2 Post_{i,t} + \beta_3 Mfund_{i,t} \times Post_{i,t} + \beta_4 Pc_{i,t} \\ & + \beta_5 Mfund_{i,t} \times Pc_{i,t} + \beta_6 Post_{i,t} \times Pc_{i,t} + \beta_7 Mfund_{i,t} \\ & \times Pc_{i,t} \times Post_{i,t} + \beta_8 X_{i,t} + \varepsilon_{i,t}. \end{aligned} \quad (6)$$

5 Empirical Results

5.1 Descriptive Statistics

Panel A of Table 2 presents descriptive statistics of empirical variables in the full sample. We found that the mean of *Da_MJones* is 0.059. The means of three variables about fraud detection are respectively 0.173, 0.242, and 0.105. There are on average 23.270 analysts following the firms in our sample. 50.40% of the sample are in our event group or treatment group (the three different types of main fund movements are respectively 19.71%, 20.18%, and 10.51%), proximately matching with our 1:1 matching approach. Moreover, Panel B compares firms' characteristics between samples in the control group (without abnormal main fund movements) and event group (with abnormal main fund movements) at the event year, and at the same time, reports two-sample t-tests.

Table 2 Descriptive Statistics

Panel A Summary

Variable		*N*	Mean	STD	25%	Median	75%
EM	*Da_MJones*	5,082	0.059	0.058	0.019	0.041	0.078
	Fraud_detection1	5,082	0.173	0.378	0.000	0.000	0.000
Fraud detection	*Fraud_detection2*	5,082	0.242	0.450	0.000	0.000	1.000
	Fraud_detection3	5,082	0.105	0.306	0.000	0.000	0.000
	Analyst_all	5,082	23.270	41.872	0.000	3.000	25.000
Analyst coverage	*Analyst_star*	5,082	3.507	8.625	0.000	0.000	2.000
	Analyst_nonstar	5,082	20.552	38.738	0.000	3.000	22.000
	Mfund	5,082	0.504	0.500	0.000	1.000	1.000
	Buyin	5,082	0.197	0.135	0.000	0.000	0.000
Abnormal main fund movements	*Sellout*	5,082	0.202	0.248	0.000	0.000	0.000
	Handover	5,082	0.105	0.061	0.000	0.000	0.000
	Post	5,082	0.514	0.498	0.000	0.000	1.000
Political connections	*Pc*	5,082	0.233	0.261	0.000	0.000	0.000
	Size	5,082	21.665	1.301	20.803	21.507	22.344
	Lev	5,082	0.489	0.202	0.337	0.494	0.641
Control variables	*Cret_volatility*	5,082	0.128	0.057	0.089	0.115	0.151
	Totinsholdper	5,082	0.178	0.191	0.027	0.109	0.269
	Listage	5,082	11.236	6.767	7.000	12.000	16.000

(*To be continued*)

(*Continued*)

Variable		*N*	Mean	STD	25%	Median	75%
Control variables	*Bm*	5,082	0.293	0.978	–0.266	0.005	0.513
	Ret	5,082	20.247	1.308	19.237	20.390	21.168
	Turnover	5,082	0.037	0.070	0.010	0.030	0.066
	Roa	5,082	0.037	0.070	0.010	0.030	0.066
	Dual	5,082	0.144	0.351	0.000	0.000	0.000
	Indir	5,082	0.343	0.092	0.333	0.333	0.375
	Lawscore	5,082	9.221	5.300	5.240	7.390	13.990
	Protected	5,082	0.136	0.343	0.000	0.000	0.000

Panel B Univariate Tests: Comparing Firms' Characteristics in the Event Year

Variable	Control group			Event group			*T* test	Wilcoxon Z
	N	Mean	Median	*N*	Mean	Median		
Da_MJones	2,562	0.062	0.042	2,520	0.055	0.039	–2.980***	–3.869***
Fraud_detection1	2,562	0.139	0.000	2,520	0.205	0.000	–3.125***	–1.113
Fraud_detection2	2,562	0.202	0.000	2,520	0.279	0.000	–2.691***	–0.521
Fraud_detection3	2,562	0.082	0.000	2,520	0.126	0.000	–4.142***	–1.326
Analyst_all	2,562	19.228	3.000	2,520	27.615	4.000	–3.651	–0.675
Analyst_star	2,562	2.646	0.000	2,520	4.432	0.000	–8.012***	–7.990***
Analyst_nonstar	2,562	16.707	3.000	2,520	24.685	3.000	–2.381**	–2.382**

(*To be continued*)

(*Continued*)

Variable	Control group			Event group			*T* test	Wilcoxon Z
	N	Mean	Median	*N*	Mean	Median		
Mfund	2,562	0.000	0.000	2,520	1.000	1.000	-	-
Buyin	2,562	0.000	0.000	2,562	0.394	0.000	-	-
Sellout	2,562	0.000	0.000	2,562	0.396	0.000	-	-
Handover	2,562	0.000	0.000	2,562	0.210	0.000	-	-
Post	2,562	0.516	0.000	2,520	0.503	0.000	1.342	0.744
Pc	0.230	0.623	0.000	0.235	0.713	0.000	–1.251	–0.661
Size	2,562	21.778	21.622	2,520	21.560	21.416	1.589	1.149
Lev	2,562	0.485	0.486	2,520	0.493	0.505	–0.851	–1.009
Cret_volatility	2,562	0.126	0.115	2,520	0.130	0.117	–1.402	–0.695
Totinsholdper	2,562	0.181	0.108	2,520	0.178	0.110	1.115	–1.403
Listage	2,562	10.043	12.000	2,520	12.032	14.000	–12.702***	–12.326**
Bm	2,562	1.097	0.831	2,520	1.053	0.778	4.491***	4.101***
Ret	2,562	0.285	0.005	2,520	0.289	0.006	–1.523	–1.401
Turnover	2,562	20.337	20.474	2,520	20.163	20.315	0.508	1.071
Roa	2,562	0.036	0.034	2,520	0.035	0.028	1.025	0.912
Dual	2,562	0.147	0.000	2,520	0.142	0.000	1.667	0.524
Indir	2,562	0.342	0.333	2,520	0.344	0.333	–0.356	–0.162
Lawscore	2,562	8.790	7.320	2,520	9.621	7.600	–6.265***	–5.978***
Protected	2,562	0.143	0.000	2,520	0.130	0.000	1.940*	1.942*

Notes. All variables are as defined in table 1. *, **, and *** indicate statistical significance at the10%, 5% and 1% levels, respectively.

There are no significant differences in the characteristics of the event group and control group, except the *Listage*, *Bm* and *Lawscore*, indicating that our empirical results are not from differences of characteristics between the event group and control group.

5.2 Multivariate Regression Results

(1) Subsequent Political Cost after Abnormal Main Fund Movements

Table 3 reports the empirical results for the presupposition. Political cost is specified as analysts' coverage, shown in Panel A. The dependent variable in Column (1) is the total number of reports released by analysts on the firm (*Analysts' coverage*). The reputation of financial analysts (*Star analysts*) serves as the basis for grouping the sample, as shown in Columns (2) and (3). According to Panel A, the estimated coefficients *Mfund*×*Post* are significantly positive in all the three models, indicating that more analysts tend to engage the firms with abnormal main fund movements. The result is in line with presupposition 1A.

On the other hand, we proxy political cost as the possibility of being detected by the CSRC (*Fraud detection*), as shown in Panel B of Table 3. The dependent variable in Column (4) is the possibility of being detected in the current period (*Curyear*). *Mfund*×*Post* are significantly positive in all three of the models, suggesting that firms with abnormal main fund movements are more likely to be detected in the event year. We further extend our prediction to the previous three periods ($Preyear_{1\text{-}3}$) as well as the post three periods ($Postyear_{1\text{-}3}$), shown in Column (5) and (6). Different results have been found in $Preyear_{1\text{-}3}$, indicating that abnormal main fund movements only affect the likelihood of fraud detection in the current and subsequent years. Presupposition 1B has been proved.

(2) Abnormal Main Fund Movements, Political Connections and Earnings Management

We then examine whether abnormal main fund movements affect the level of earnings management. Panel A of Table 4 reports the multivariate regression results using the full sample. In Column (1), we notice that *Mfund*×*Post* is significantly negatively related to *Da_MJones*. The result is consistent with

Table 3 Presupposition: Subsequent Social Focus after Abnormal Main Fund Movements

Dep. Var=	**Panel A** *Analysts' coverage*			**Panel B** *Fraud detection*		
	All	**Star**	**Non–star**	**Curyear**	**Preyear$_{1–3}$**	**Postyear$_{1–3}$**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Mfund	1.236*	0.246	0.938	–0.018	–0.001	–0.121
	(1.66)	(1.46)	(1.35)	(–0.15)	(–0.01)	(–1.07)
Post	–3.578***	–0.391*	–3.236***	–0.080	0.160	–0.098
	(–3.49)	(–1.69)	(–3.39)	(–0.57)	(1.17)	(–0.68)
Mfund×Post	2.988***	0.499**	2.618***	0.299**	0.189	0.546***
	(2.88)	(2.13)	(2.72)	(2.08)	(1.37)	(3.70)
Size	12.722***	2.298***	11.099***	–0.275***	–0.391***	–0.211***
	(31.6)	(25.3)	(29.7)	(–4.09)	(–6.52)	(–2.90)
Lev	–14.494***	–3.091***	–12.236***	1.164***	1.708***	1.129***
	(–8.35)	(–7.88)	(–7.59)	(4.56)	(6.43)	(4.38)
Cret_volatility	–18.958***	–2.429	–22.579***	2.531***	2.213***	3.455***
	(–2.58)	(–1.46)	(–3.30)	(3.19)	(3.11)	(3.99)
Totinsholdper	10.162***	1.332***	8.876***	–0.093	0.157	–0.147
	(7.08)	(4.10)	(6.65)	(–0.48)	(0.77)	(–0.71)
Listage	177.326***	30.342***	149.867***	–0.859	–0.516	–0.722
	(40.2)	(30.5)	(36.6)	(–1.17)	(–0.79)	(–1.10)
Analyst				0.001	0.002	–0.000
				(0.41)	(1.40)	(–0.34)
Bm	–4.038***	–0.275***	–3.807***	0.087	0.061	–0.006
	(–9.56)	(–2.89)	(–9.70)	(1.64)	(1.09)	(–0.093)
Ret	–7.796***	–1.132***	–6.943***	–0.008	–0.047	0.030
	(–15.8)	(–10.2)	(–15.1)	(–0.14)	(–1.06)	(0.47)

(*To be continued*)

(*Continued*)

Dep. Var=	**Panel A** *Analysts' coverage*			**Panel B** *Fraud detection*		
	All	**Star**	**Non–star**	**Curyear**	**Preyear$_{1–3}$**	**Postyear$_{1–3}$**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Turnover	3.865***	0.313***	4.366***	0.019	0.055	–0.051
	(8.35)	(2.99)	(10.1)	(0.29)	(0.92)	(–0.75)
Roa	65.489***	9.290***	61.150***	–2.484***	–2.510***	–0.885
	(12.9)	(8.13)	(13.0)	(–4.07)	(–4.47)	(–1.21)
Dual	4.263***	0.479***	3.715***	0.437***	0.355***	0.328***
	(5.94)	(2.96)	(5.58)	(4.50)	(3.72)	(3.35)
Indir	5.476	1.841	7.734*	–0.190	–0.236	–1.171*
	(1.09)	(1.63)	(1.66)	(–0.26)	(–0.36)	(–1.69)
Lawscore	–0.001	0.021*	–0.045	–0.036***	–0.030***	–0.034***
	(–0.019)	(1.66)	(–0.89)	(–4.11)	(–3.40)	(–3.93)
Protected	–2.105	0.270	–3.287**	0.265	0.253	0.264
	(–1.45)	(0.82)	(–2.44)	(1.16)	(1.06)	(1.08)
Constant	–320.500***	–50.052***	–297.310***	3.109**	5.708***	3.012**
	(–37.8)	(–26.1)	(–37.8)	(2.29)	(4.12)	(2.24)
Fixed Effects	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*
Obs	5082	5082	5082	5082	5082	5082
Adj R^2	0.51	0.36	0.40	0.07	0.08	0.06

Notes. All the variables are detailed in Table 1. The t-statistics (Panel A) and Chi square (Panel B) reported in parentheses are based on standard errors adjusted for firm-level clustering. *, **, and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Hypothesis 1, that is, firms encountering abnormal main fund movements decrease the level of earnings management more significantly than the control group. As well, the coefficient of *Post* is insignificant, and thus indicates that there is no systematical time-series change in the level of earnings management around the events.

In Column (2), we find that *Mfund*×*Post*×*Pc* is significantly positive, suggesting that firms with political connections are less likely to decrease levels of earnings management when they experience abnormal main fund movements. We further partition the sample into two subsamples, and the subsample regressions are displayed in Panel B. The coefficient of *Mfund*×*Post* in the group of firms having political connections (*Pc* sample) is negative but not significant, while that in the group without political connections (*Non-Pc* sample) is significantly negative at 1%. Hypothesis 2 is supported and the result indicates the necessity of the adequate awareness of the effects of political connections. Overall, we find that the *Non-Pc* group decreases the level of earnings management more significantly than the *Pc* group, indicating that the motivation to avoid political costs is more obvious in firms without political connections.

The results for the control variables are also consistent with our expectations. For instance, the coefficient of *Size* is significantly negative, indicating that smaller firms are more eager to engage in earnings management. The coefficient of *Lev* indicates that the influence of financial leverage on earnings management is significantly positive. The coefficients of *Cret_volatility* and *Turnover* suggest that firms with higher stock price volatility and less turnover are more likely to manage earnings because of poor stock performance. The estimated coefficient of *Protected* is significantly positive, indicating that nationally protected firms are more willing to manage earnings because they need to meet the expectations of senior government.

(3) The Effect of Different Types of Abnormal Movements on Earnings Management

We also carried out an array of tests based on subdividing types of abnormal main fund movements, including “buying in” (*Buyin*), “selling out” (*Sellout*), and “handing over” (*Handover*), the results of which are respectively presented from Type 1 to Type 3 in Table 5. Panel A includes the full sample. Column (1), (5), and (9) examine Hypothesis 1, while column (2), (6), and (10) examine Hypothesis 2.

Table 4 Baseline Model

Da_MJones **Regressed on** ***Abnormal main fund movements***	**Panel A Full sample**		**Panel B Subsample**	
			Pc	***Non–Pc***
	(1)	**(2)**	**(3)**	**(4)**
Mfund	0.008***	0.008***	0.007	0.008***
	(5.38)	(3.58)	(1.45)	(3.74)
Post	0.002	0.004	0.001	0.003
	(0.97)	(1.47)	(0.11)	(1.05)
Mfund×Post	–0.009***	–0.010***	–0.007	–0.013***
	(–4.16)	(–3.59)	(–0.82)	(–3.64)
Pc		0.007*		
		(1.88)		
Mfund×Pc		–0.001		
		(–0.30)		
Post×Pc		–0.007		
		(–1.48)		
Mfund×Post×Pc		0.006**		
		(2.05)		
Size	–0.007***	–0.006***	–0.004**	–0.007***
	(–8.62)	(–6.93)	(–2.04)	(–6.47)
Lev	0.029***	0.033***	0.055***	0.027***
	(8.26)	(8.33)	(6.12)	(6.06)
Cret_volatility	0.039***	0.056***	0.081**	0.048***
	(2.59)	(3.41)	(2.18)	(2.61)
Totinsholdper	0.003	0.001	0.009	–0.001
	(0.93)	(0.21)	(1.21)	(–0.15)
Listage	0.040***	0.024***	0.016	0.026**
	(4.53)	(2.58)	(0.86)	(2.41)
Analyst	–0.002**	–0.002**	–0.004*	–0.002
	(–2.17)	(–1.96)	(–1.70)	(–1.49)
Bm	0.004***	0.004***	0.003	0.004***
	(4.02)	(3.39)	(1.25)	(2.94)
Ret	0.003***	0.002*	–0.001	0.003**
	(3.37)	(1.91)	(–0.34)	(2.10)
Turnover	–0.088***	–0.032***	0.009	–0.041***
	(–8.62)	(–2.65)	(0.31)	(–3.17)

(*To be continued*)

(*Continued*)

Da_MJones **Regressed on *Abnormal main fund movements***	**Panel A Full sample**		**Panel B Subsample**	
			Pc	***Non–Pc***
	(1)	**(2)**	**(3)**	**(4)**
Roa	–0.000	0.000	0.004	–0.001
	(–0.29)	(0.23)	(1.36)	(–0.49)
Dual	0.039***	0.043***	0.074***	0.031**
	(3.87)	(3.73)	(3.02)	(2.36)
Indir	–0.000	–0.000	0.000	–0.000
	(–0.42)	(–0.98)	(0.12)	(–1.15)
Lawscore	0.010***	0.010***	0.014**	0.008**
	(3.74)	(3.19)	(2.01)	(2.40)
Protected	0.120***	0.122***	0.086*	0.105***
	(5.91)	(5.55)	(1.95)	(4.26)
Constant	0.130***	0.115***	0.131**	0.118**
	(6.11)	(5.12)	(2.13)	(2.51)
Fixed Effects	*IY*	*IY*	*IY*	*IY*
Obs	5082	5082	1183	3899
Adj R^2	0.08	0.08	0.10	0.08
Subsample comparison of coefficients on *Mfund×Post*		(3) VS (4)	chi2(1)=5.07 Prob > chi2=0.0371	

Notes. The *t*-statistics reported in parentheses are based on standard errors adjusted for firm-level clustering. *, **, and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Results in Column (1) and (5) show that the coefficients *Mfund×Post* in both the *Buyin* group and *Sellout* group are significantly negative at 5%, suggesting that the two types of abnormal main fund movements are important influencing factors on earnings management. Interestingly, when using the *Handover* sample, changes in earnings management around the event year become more significant. It indicates that bi-directional movements not only have no offset effects, but intensify the decreasing of firms' earnings management. Furthermore, after decomposing the total sample into *Pc* group and *Non-Pc* group, the results shown in Panel B of each of the three types still hold and we will not repeat them here.

Table 5 Different Types of Abnormal Main Fund Movements and Earnings Management

Da_MJones Regressed on	Type 1: *Buyin*				Type 2: *Sellout*				Type 3: *Handover*			
	Panel A Full sample		Panel B Subsample		Panel A Full sample		Panel B Subsample		Panel A Full sample		Panel B Subsample	
			Pc	*Non–Pc*			*Pc*	*Non–Pc*			*Pc*	*Non–Pc*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Mfund	0.005***	0.005***	0.004	0.005***	0.011***	0.013**	0.013	0.009**	0.004	0.001	0.019	0.002
	(3.55)	(3.01)	(0.95)	(3.14)	(3.20)	(2.45)	(1.40)	(2.44)	(0.82)	(0.31)	(1.33)	(0.33)
Post	–0.001	–0.000	0.003	–0.002	–0.002	0.000	0.001	–0.003	–0.001	0.001	0.002	0.000
	(–0.21)	(–0.045)	(0.61)	(–0.74)	(–0.41)	(0.029)	(0.084)	(–0.51)	(–0.17)	(0.13)	(0.16)	(0.075)
Mfund×Post	–0.005**	–0.004**	–0.003	–0.006**	–0.012**	–0.011**	–0.009	–0.013**	–0.009***	–0.009***	–0.006*	–0.011***
	(–2.44)	(–2.21)	(–0.51)	(–2.18)	(–2.43)	(–2.42)	(–0.82)	(–2.42)	(–5.40)	(–5.16)	(–1.72)	(–5.16)
Pc		0.006**				–0.002				–0.005		
		(1.98)				(–0.18)				(–0.64)		
Mfund×Pc		0.000				0.013				0.016		
		(0.073)				(1.08)				(1.24)		
Post×Pc		–0.001				0.002				–0.005		
		(–0.31)				(0.22)				(–0.55)		
Mfund×Post×Pc		0.002*				0.005**				–0.004		
		(1.92)				(2.38)				(–0.25)		
Size	–0.007***	–0.007***	–0.003	–0.007***	–0.003	–0.003	0.006	–0.005**	–0.006***	–0.005**	–0.001	–0.006**
	(–8.41)	(–6.50)	(–1.22)	(–6.27)	(–1.57)	(–1.40)	(0.94)	(–2.03)	(–2.88)	(–1.97)	(–0.098)	(–2.43)

(*To be continued*)

(*Continued*)

Da_MJones Regressed on	Type 1: *Buyin*				Type 2: *Sellout*				Type 3: *Handover*			
	Panel A Full sample		Panel B Subsample		Panel A Full sample		Panel B Subsample		Panel A Full sample		Panel B Subsample	
			Pc	*Non–Pc*			*Pc*	*Non–Pc*			*Pc*	*Non–Pc*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Lev	0.030***	0.033***	0.050***	0.028***	0.022***	0.028***	0.088***	0.014	0.029***	0.029***	0.017	0.031**
	(7.87)	(7.48)	(4.94)	(5.66)	(2.60)	(2.75)	(3.20)	(1.22)	(3.07)	(2.59)	(0.58)	(2.48)
Cret_volatility	0.023	0.046**	0.059	0.041**	0.003	0.019	0.155	–0.026	0.065	0.086**	0.029	0.078*
	(1.39)	(2.51)	(1.46)	(2.01)	(0.081)	(0.46)	(1.41)	(–0.57)	(1.62)	(1.98)	(0.24)	(1.66)
Totinsholdper	0.003	–0.000	0.008	–0.002	0.004	0.001	0.000	0.008	0.003	0.008	0.004	0.006
	(0.81)	(–0.066)	(0.96)	(–0.41)	(0.51)	(0.071)	(0.016)	(0.85)	(0.40)	(0.92)	(0.16)	(0.62)
Fdholdper	0.037***	0.016	–0.004	0.020	0.022	0.004	–0.002	0.003	0.056**	0.041	0.054	0.044
	(3.77)	(1.50)	(–0.21)	(1.60)	(1.02)	(0.17)	(–0.033)	(0.10)	(2.18)	(1.50)	(0.74)	(1.43)
Analyst	–0.001	–0.001	–0.003	–0.001	–0.004**	–0.004*	–0.021**	–0.002	–0.003	–0.002	0.004	–0.003
	(–1.42)	(–1.11)	(–1.30)	(–0.71)	(–2.26)	(–1.81)	(–2.52)	(–0.97)	(–1.52)	(–0.67)	(0.49)	(–0.94)
Bm	0.004***	0.003***	0.002	0.004**	0.005**	0.004*	0.002	0.005*	–0.000	–0.001	–0.004	–0.000
	(3.47)	(2.86)	(0.79)	(2.52)	(2.11)	(1.73)	(0.53)	(1.78)	(–0.049)	(–0.27)	(–0.50)	(–0.0028)
Ret	0.004***	0.002**	–0.000	0.002*	–0.001	–0.000	–0.013*	0.004	0.003	0.002	–0.002	0.005
	(3.65)	(1.99)	(–0.038)	(1.80)	(–0.36)	(–0.15)	(–1.86)	(1.35)	(1.16)	(0.66)	(–0.26)	(1.47)
Turnover	–0.081***	–0.011	0.026	–0.016	–0.121***	–0.051*	–0.027	–0.072**	–0.120***	–0.044	–0.086	–0.053
	(–7.11)	(–0.77)	(0.76)	(–1.08)	(–5.50)	(–1.92)	(–0.39)	(–2.44)	(–4.93)	(–1.47)	(–1.00)	(–1.62)
Roa	–0.001	0.001	0.004	–0.000	–0.001	–0.001	–0.006	–0.001	–0.002	0.002	0.023*	–0.006
	(–0.49)	(0.37)	(1.08)	(–0.22)	(–0.34)	(–0.35)	(–0.65)	(–0.29)	(–0.53)	(0.49)	(1.71)	(–1.15)

(*To be continued*)

(*Continued*)

Da_MJones Regressed on	Type 1: *Buyin*				Type 2: *Sellout*				Type 3: *Handover*			
	Panel A Full sample		**Panel B Subsample**		**Panel A Full sample**		**Panel B Subsample**		**Panel A Full sample**		**Panel B Subsample**	
			Pc	***Non–Pc***			***Pc***	***Non–Pc***			***Pc***	***Non–Pc***
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
Dual	0.043***	0.051***	0.093***	0.034**	0.014	–0.000	–0.058	–0.001	0.045*	0.106***	0.255**	0.083**
	(3.97)	(3.93)	(3.56)	(2.29)	(0.63)	(–0.0072)	(–0.95)	(–0.047)	(1.79)	(3.23)	(2.46)	(2.29)
Indir	0.000	–0.000	–0.000	–0.000	0.000	–0.000	–0.000	–0.000	0.001	0.000	–0.000	0.000
	(0.44)	(–0.45)	(–0.46)	(–0.51)	(0.24)	(–0.12)	(–0.42)	(–0.19)	(1.57)	(0.83)	(–0.17)	(0.43)
Lawscore	0.009***	0.009***	0.014*	0.009**	0.011	0.010	–0.012	0.012	0.016**	0.019**	0.033	0.007
	(3.03)	(2.81)	(1.73)	(2.44)	(1.54)	(1.15)	(–0.57)	(1.23)	(2.30)	(2.15)	(1.37)	(0.69)
Protected	0.132***	0.134***	0.025	0.110***	0.147***	0.101**	0.169	0.164***	0.084*	0.045	0.129	0.025
	(5.91)	(5.51)	(0.52)	(4.77)	(4.21)	(2.36)	(1.47)	(2.85)	(1.72)	(0.82)	(0.83)	(0.41)
Fixed Effects	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*
Obs	2002	2002	467	1535	2053	2053	478	1574	1027	1027	240	788
Adj Rsq	0.08	0.08	0.10	0.09	0.10	0.09	0.20	0.11	0.13	0.13	0.20	0.15
Subsample comparison of coefficients on *Mfund*×*Post*	(3) VS (4)		chi2(1)=5.21 Prob > chi2= 0.0330		(7) VS (8)		chi2(1)=5.34 Prob > chi2= 0.0208		(11) VS (12)		chi2(1) = 0.03 Prob > chi2 = 0.8692	

Notes. The t-statistics reported in parentheses are based on standard errors adjusted for firm-level clustering. *, **, and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

6 Robustness Tests

To check the robustness of the conclusion, we conduct robustness tests in the following ways.

6.1 Consideration for Self-selection

The abnormal main fund movements may be caused by changes in returns and risks. If this is the case, our finding, that firms decrease earnings management after abnormal main fund movements, may be caused by the biased coefficient estimates in our DID model based on OLS regression. Because there is a potential self-selection problem in the events of abnormal main fund movements, we adopt the method proposed by Heckman (1978) to construct a two-stage regression to alleviate the influence of virtual endogenous variables.

In the first stage, we investigate the influence of returns and risks at the market level, industry level and firm level on the behavior of main funds. First, at the firm level, we select the following variables to control the possible influence of a firm's investment values and risks, respectively, on the behavior of main funds: (1) we introduce the natural logarithm of the firm's market value at the end of the year (*Mve*) and stock returns (*Ret*) as proxies for firms' investment value; (2) the annual standard deviation of daily return of some stocks (*Stdret*) and the cost of debt (*Debtcost*) are included as proxies for the firm's investment risks.

Second, at the industry level, we collect the climate index of 21 industries for each month during 2004–2011 (*Indclimate*)[6] in order to determine the industry investment environment when the main funds are entering or exiting. Accordingly, dummy variables for industry used in the main test should be replaced by the new continuous variable, *Indclimate,* in our robustness checks.

Third, at the level of the macro investment environment, we consider the Elliott waves, i.e., entire up and down cycles of the market indices. 366 firms with abnormal main fund movements show inhomogeneous distribution in each circle of bull and bear markets, as is shown in Appendix I. *Bull* equals 1 if the abnormal main fund movements occur in the upward phase of the composite

[6] The monthly climate index of 21 industries is released by the DRC industry climate monitoring platform. See: http://drcicms.drcnet.com.cn/.

indices of the stock exchange (Shanghai Stock Market or Shenzhen Stock Market), and 0 otherwise.

The Probit approach is adopted in our first stage. We include firm level, industry level, market level, and all the control variables specified in the main test, in self-selection Model (7).

$$Mfund_{i,t} = h_0 + h_1 Mve_{i,t} + h_2 Ret_{i,t} + h_3 Stdret_{i,t} + h_4 Debtcost_{i,t} + h_5 Indclimate_{i,t} + h_6 Bull_{i,t} + h_7 X_{i,t} + \varepsilon. \tag{7}$$

By estimating the first stage, we get the Inverse Mills Ratio (*Invmr*) and then bring *Invmr* into Models (8) and (9) to check whether the empirical results remain the same.

$$Da\_MJones_{i,t} = \alpha + \beta_1 Mfund_{i,t} + \beta_2 Post_{i,t} + \beta_3 Mfund_{i,t} \times Post_{i,t} + \beta_4 X_{i,t} + \beta_5 Invmr + \varepsilon_{i,t}. \tag{8}$$

$$Da\_MJones_{i,t} = \alpha + \beta_1 Mfund_{i,t} + \beta_2 Post_{i,t} + \beta_3 Mfund_{i,t} \times Post_{i,t} + \beta_4 Pc_{i,t} + \beta_5 Mfund_{i,t} \times Pc_{i,t} + \beta_6 Post_{i,t} \times Pc_{i,t} + \beta_7 Mfund_{i,t} \times Pc_{i,t} \times Post_{i,t} + \beta_8 X_{i,t} + \beta_5 Invmr + \varepsilon_{i,t}. \tag{9}$$

The result for the first stage regression is shown in Column (1) of Table 6. Firms with higher debt, lower market value and larger volatility of returns are more likely to encounter abnormal main fund movements.[7] Moreover, higher industry climates and bull market may bring higher possibilities for main fund movements. The results for the second stage regression are displayed in Columns (2) and (3). The coefficient of $Mfund \times Post$ is significantly negative while that of $Mfund \times Post \times Pc$ is significantly positive. The results indicate that after controlling for self-selection, our findings remain robust and strongly support Hypothesis 1 and 2.

6.2 Alternative Main Variables

We consider a set of additional types of earnings management that are widely used in the literature to proxy for discretionary accrual, including the KLW's (2005) residual accruals (*Da_Kothari*), as well as Dechow and Dichev's (2002)

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[7] The results provide support for the reports in the "Economic Information Daily" from December 19th 2014, i.e., nearly all the 18 stocks investigated by the CSRC on suspicion of speculation have low market value. See: http://jjckb.xinhuanet.com/2014-12/20/content_531937.htm

Table 6 Robustness Test Controlling for Self-selection using 2SLS

Stage 1: PROBIT	***MFUND***	Stage 2: OLS	***Da_MJones***	
	(1)		**(2)**	**(3)**
Constant	–0.262***	*Constant*	0.205***	0.206***
	(–6.25)		(5.26)	(5.09)
Mve	–0.219***	*Mfund*	0.005*	0.004
	(–12.6)		(1.71)	(0.80)
Ret	0.183*	*Post*	0.000	–0.000
	(1.75)		(1.51)	(–0.55)
Stdret	0.039***	*Mfund×Post*	–0.008**	–0.010**
	(8.89)		(–2.12)	(–2.19)
Debtcost	0.142***	*Pc*		–0.005*
	(2.58)			(–1.75)
Indclimate	0.325***	*Mfund×Pc*		0.002*
	(3.69)			(1.92)
Bull	1.231***	*Post×Pc*		–0.027
	(7.92)			(–0.50)
		Mfund×Post×Pc		0.003***
				(2.75)
Size	–0.124***	*Size*	–0.008***	–0.007***
	(–5.23)		(–13.15)	(–13.12)
Lev	0.118***	*Lev*	0.067***	0.060***
	(6.41)		(21.01)	(21.13)
Cret_volatility	0.031*	*Cret_volatility*	–0.000	–0.000
	(1.82)		(–0.59)	(–0.52)
Totinsholdper	–0.002*	*Totinsholdper*	0.018***	0.016***
	(–1.71)		(8.73)	(8.67)
Listage	–0.113*	*Listage*	–0.003**	–0.002**
	(–1.93)		(–2.29)	(–2.37)
Analyst	0.590***	*Analyst*	0.020***	0.020***
	(3.21)		(9.81)	(9.75)
Bm	0.223*	*Bm*	–0.001*	–0.001*
	(1.92)		(–1.78)	(–1.73)
Ret	0.001	*Ret*	0.016***	0.013***
	(0.16)		(5.24)	(5.31)
Turnover	–0.992**	*Turnover*	0.001***	0.001***
	(–2.20)		(8.78)	(8.71)
Roa	–1.076***	*Roa*	–0.001	–0.001
	(–11.6)		(–0.36)	(–0.26)

(*To be continued*)

(*Continued*)

Stage 1: PROBIT	*MFUND*	Stage 2: OLS	*Da_MJones*	
	(1)		(2)	(3)
Dual	–0.005*	*Dual*	0.027***	0.052***
	(–1.70)		(3.61)	(3.15)
Indir	–0.054**	*Indir*	–0.000	–0.000
	(–2.20)		(–0.37)	(–1.07)
Lawscore	0.212**	*Lawscore*	0.009***	0.007***
	(2.18)		(3.51)	(3.28)
Protected	0.078*	*Protected*	0.116***	0.113***
	(1.83)		(5.98)	(5.12)
		Invmr	0.020*	0.023*
			(1.66)	(1.79)
Ind &Year	Controlled	*Ind &Year*	Controlled	Controlled
Obs	5082	Obs	5082	5082
Adj R^2	0.215	Adj Rsq	0.13	0.13

Notes. The Chi square (Stage 1) and t-statistics (Stage 2) reported in parentheses are based on standard errors adjusted for firm-level clustering. *, **, and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

residual accruals (*Da_DD*). Table 8 shows the results for the robustness test on alternative proxies of earnings management. According to Table 7, the estimated coefficients of *Mfund*×*Post* are significantly negative in all of the models, and *Pc* acts as a critical moderating variable. That means our results are robust when the other two measures are used.

We also try to redefine abnormal main fund movements. In the main test, if the stockholdings of Top 10 shareholders increase or decrease by more than 50% between two adjacent quarterly reports, we use an indicator, *Mfund*, to represent it. To test the effectiveness of this measurement, we also change the criteria to 40% and 60%. We find our results still hold.

6.3 Other Measurements for the "Shield Effect"

Prior literature also suggests that SOEs get more protection from government (Estrin et al., 2009); firms in regions with high market development and a more lawful environment are more sensitive to legal punishment (Volpin, 2002); and

Table 7 Robustness Test on Alternative Proxies of Earnings Management

Dep. Var=	***Da_Kothari***				***Da_DD***			
	Panel A Full sample		**Panel B Subsample**		**Panel A Full sample**		**Panel B Subsample**	
			Pc	**Non–Pc**			**Pc**	**Non–Pc**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Mfund	0.007^{**}	0.005	0.011	0.006	0.014^{***}	0.010^{**}	0.027^{***}	0.009^{*}
	(2.42)	(1.44)	(1.37)	(1.63)	(3.33)	(2.09)	(2.64)	(1.80)
Post	0.001	–0.001	0.007	–0.002	0.012^{**}	0.007	0.033^{***}	0.007
	(0.15)	(–0.17)	(0.78)	(–0.33)	(2.28)	(1.19)	(2.80)	(1.17)
Mfund×Post	$–0.011^{**}$	$–0.012^{**}$	–0.009	$–0.012^{**}$	$–0.013^{**}$	$–0.010^{*}$	–0.010	$–0.030^{**}$
	(–2.41)	(–2.32)	(–0.90)	(–2.50)	(–2.20)	(–1.79)	(–1.49)	(–2.53)
Pc		–0.007				–0.005		
		(–1.30)				(–0.69)		
Mfund×Pc		0.010				0.014		
		(1.38)				(1.39)		
Post×Pc		0.007				0.022^{**}		
		(0.97)				(2.36)		
Mfund×Post×Pc		0.005^{**}				0.013^{***}		
		(2.12)				(3.41)		
Size	–0.003	–0.003	0.001	$–0.004^{*}$	$–0.005^{*}$	$–0.005^{**}$	0.021^{***}	$–0.012^{***}$
	(–1.42)	(–1.49)	(0.17)	(–1.86)	(–1.89)	(–2.08)	(3.73)	(–4.51)
Lev	0.026^{***}	0.026^{***}	0.067^{***}	0.018^{**}	0.030^{***}	0.029^{***}	0.016	0.038^{***}
	(3.45)	(3.32)	(3.52)	(2.10)	(3.00)	(2.85)	(0.67)	(3.28)

(*To be continued*)

(*Continued*)

Dep. Var=	*Da_Kothari*				*Da_DD*			
	Panel A Full sample		**Panel B Subsample**		**Panel A Full sample**		**Panel B Subsample**	
			Pc	**Non–Pc**			**Pc**	**Non–Pc**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Cret_volatility	0.035	0.040	0.152**	0.001	0.165***	0.170***	0.268***	0.126***
	(1.12)	(1.27)	(1.98)	(0.019)	(4.01)	(4.15)	(2.71)	(2.75)
Totinsholdper	–0.002	–0.002	–0.003	0.002	–0.023***	–0.026***	–0.023	–0.021**
	(–0.25)	(–0.30)	(–0.21)	(0.24)	(–2.70)	(–3.04)	(–1.13)	(–2.17)
Listage	0.004	0.007	–0.006	0.005	–0.003	–0.006	–0.045	–0.024
	(0.19)	(0.33)	(–0.16)	(0.20)	(–0.11)	(–0.26)	(–0.87)	(–0.80)
Analyst	–0.003**	–0.003**	–0.005*	–0.003	–0.003**	–0.003**	–0.006*	–0.006
	(–2.22)	(–1.98)	(–1.73)	(–1.51)	(–2.32)	(–1.99)	(–1.84)	(–1.61)
Bm	–0.002	–0.002	–0.011**	–0.001	–0.005**	–0.005**	–0.012*	–0.003
	(–1.05)	(–0.89)	(–2.01)	(–0.61)	(–2.36)	(–2.18)	(–1.87)	(–1.06)
Ret	0.004**	0.004**	0.002	0.004*	0.001	0.001	0.002	–0.001
	(2.07)	(2.02)	(0.75)	(1.65)	(0.41)	(0.40)	(0.55)	(–0.24)
Turnover	–0.003	–0.003	–0.009**	0.000	–0.008***	–0.008***	–0.020***	–0.001
	(–1.45)	(–1.37)	(–1.97)	(0.14)	(–2.92)	(–2.74)	(–3.22)	(–0.41)
Roa	0.046**	0.042**	0.099**	0.019	0.051**	0.046*	0.132**	0.007
	(2.28)	(2.10)	(2.23)	(0.82)	(1.97)	(1.77)	(2.44)	(0.25)
Dual	–0.001	–0.001	–0.007	0.002	–0.004	–0.005	–0.013	–0.002
	(–0.25)	(–0.34)	(–1.15)	(0.54)	(–0.86)	(–1.29)	(–1.60)	(–0.46)

(*To be continued*)

(*Continued*)

Dep. Var=	***Da_Kothari***				***Da_DD***			
	Panel A Full sample		**Panel B Subsample**		**Panel A Full sample**		**Panel B Subsample**	
			Pc	**Non–Pc**			**Pc**	**Non–Pc**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Indir	0.003	0.004	–0.050	0.013	0.002	0.003	–0.022	0.000
	(0.18)	(0.22)	(–1.14)	(0.56)	(0.079)	(0.14)	(–0.34)	(0.015)
Lawscore	0.000	0.000	0.000	0.000	–0.001***	–0.001***	–0.002**	–0.001***
	(0.90)	(1.06)	(0.24)	(1.07)	(–4.07)	(–4.01)	(–2.39)	(–2.75)
Protected	0.015**	0.017**	0.000	0.022***	0.057***	0.057***	0.066***	0.057***
	(2.25)	(2.50)	(0.029)	(2.80)	(6.39)	(6.22)	(3.70)	(5.08)
Constant	0.189***	0.184***	0.154**	0.117***	0.283***	0.288***	0.039	0.346***
	(4.73)	(4.58)	(2.01)	(3.05)	(6.88)	(7.03)	(0.35)	(6.99)
Fixed Effects	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*	*IY*
Obs	5082	5082	1183	3899	5082	5082	1183	3899
Adj Rsq	0.09	0.09	0.19	0.09	0.22	0.23	0.34	0.25
Subsample test on *Mfund×Post*	(3) VS (4)		chi2(1)=3.14 Prob > chi2=0.0711		(7) VS (8)		chi2(1)=2.66 Prob > chi2=0.1987	

Notes. The t-statistics reported in parentheses are based on standard errors adjusted for firm-level clustering. *, **, and *** indicate statistical significance at the10%, 5% and 1% levels, respectively.

firms with more institutional investors always cater to the interests of the public (La Porta et al., 2000). Hence, we consider a set of additional factors widely discussed in prior literature to substitute for political connections. They include state owned property (*SOE*), higher market development index (*Highmkt*), higher legislation index (*Highlaw*), and higher ownership of institutional investors (*Highlaw*). As shown in Table 8, none of the interaction terms is statistically significant, indicating that only political connections have a significant "shield effect" for the event firms.

Table 8 Robustness Test on First-Order Effect of Political Connections

***Da_MJones* Regressed on abnormal main fund movements**	***SOE*** (1)	***Highmkt*** (2)	***Highlaw*** (3)	***Highinst*** (4)
Mfund	0.007**	0.010***	0.009***	0.009***
	(2.45)	(3.16)	(3.12)	(4.26)
Post	0.001	0.005	0.003	0.001
	(0.21)	(1.39)	(0.89)	(0.45)
Mfund×Post	–0.004**	–0.011***	–0.007**	–0.008***
	(–2.24)	(–2.60)	(–2.10)	(–2.82)
SOE	–0.006**			
	(–2.40)			
Mfund×SOE	0.002			
	(0.55)			
Post*SOE	0.003			
	(0.78)			
Mfund×Post×SOE	0.007			
	(1.39)			
Highmkt		0.001		
		(0.39)		
Mfund×Highmkt		–0.002		
		(–0.60)		
Post×Highmkt		–0.004		
		(–1.02)		
Mfund×Post×Highmkt		0.004		
		(0.70)		
Highlaw			0.002	
			(0.90)	
Mfund×Highlaw			–0.002	
			(–0.44)	

(*To be continued*)

(*Continued*)

Da_MJones **Regressed on abnormal main fund movements**	***SOE*** **(1)**	***Highmkt*** **(2)**	***Highlaw*** **(3)**	***Highinst*** **(4)**
Post×Highlaw			–0.002	
			(–0.44)	
Mfund×Post×Highlaw			–0.002	
			(–0.33)	
Highinst				–0.001
				(–0.34)
Mfund×Highinst				–0.002
				(–0.68)
Post*Highinst				0.002
				(0.52)
Mfund×Post×Highinst				–0.001
				(–0.20)
Size	–0.006***	–0.007***	–0.007***	–0.007***
	(–7.81)	(–8.62)	(–8.65)	(–8.67)
Lev	0.029***	0.029***	0.029***	0.029***
	(8.25)	(8.26)	(8.24)	(8.29)
Cret_volatility	0.040***	0.039**	0.040***	0.039**
	(2.64)	(2.57)	(2.61)	(2.55)
Totinsholdper	0.003	0.003	0.003	0.006
	(0.96)	(0.97)	(0.98)	(1.35)
Listage	0.038***	0.040***	0.040***	0.041***
	(4.29)	(4.54)	(4.55)	(4.52)
Analyst	–0.002**	–0.002**	–0.002**	–0.002**
	(–2.19)	(–2.14)	(–2.12)	(–2.17)
Bm	0.004***	0.004***	0.004***	0.004***
	(3.94)	(4.03)	(4.05)	(4.06)
Ret	0.003***	0.003***	0.003***	0.003***
	(3.30)	(3.35)	(3.36)	(3.45)
Turnover	–0.092***	–0.088***	–0.088***	–0.088***
	(–8.97)	(–8.59)	(–8.60)	(–8.57)
Roa	–0.001	–0.000	–0.000	–0.000
	(–0.94)	(–0.29)	(–0.29)	(–0.28)
Dual	0.037***	0.039***	0.039***	0.039***
	(3.67)	(3.85)	(3.86)	(3.88)
Indir	–0.000	0.000	–0.000	–0.000
	(–0.89)	(0.063)	(–0.29)	(–0.39)

(*To be continued*)

(*Continued*)

Da_MJones **Regressed on abnormal main fund movements**	***SOE*** (1)	***Highmkt*** (2)	***Highlaw*** (3)	***Highinst*** (4)
Lawscore	0.011***	0.010***	0.010***	0.010***
	(3.87)	(3.66)	(3.65)	(3.74)
Protected	0.117***	0.120***	0.120***	0.119***
	(5.75)	(5.87)	(5.85)	(5.85)
Fixed Effects	*IY*	*IY*	*IY*	*IY*
Obs	5082	5082	5082	5082
Adj R^2	0.09	0.08	0.11	0.10

Notes. The *t*-statistics reported in parentheses are based on standard errors adjusted for firm-level clustering. *, **, and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

7 Conclusions

This paper focuses on eye-catching abnormal main fund movements, and investigates how earnings management is affected by abnormal main fund movements. We empirically test the potential political cost consideration of the firms which experience abnormal main fund movements for the first time. As well, we verify that the shield effect exists and may reduce the earnings management of the event firms. This paper provides a comparable analytical framework to enhance the understanding of the impact of abnormal main fund movements on financial reporting entities.

We match the event firms with similar ROE samples in the same industry and the same year at a proportion of 1:1. Then we use the difference in different models to prove the influence of additional political costs on earnings management. The results show that: (1) the abnormal main fund movements bring more social concerns and increase the probability of CSRC supervision, thus enhancing the firms' political costs; (2) the event group decreases earnings management significantly after abnormal main fund movements. (3) furthermore, the above relationship is more significant in firms without political connections. In order to confirm the findings of this paper, we also implement robustness tests from various perspectives. All the robustness checks demonstrate consistent results with our main tests.

The abnormal main fund movements are well-known events, and our sample cover more industries than those in previous studies on political cost hypothesis, which usually cover only monopoly industries. Therefore, the conclusions are more general. Furthermore, we provide a new perspective to understand the relationship between mandatory disclosure rules and listed firms' behavior. We expand the research field of political cost theory by finding that abnormal main fund movements impose additional political costs on event firms, and that event firms are sheltered by political connections. The implications are as follows. First of all, accounting standard setters should require listed firms to strengthen their disclosure of capital market events in financial reports, in order to provide the public with the relevant information in a unified standard. Secondly, local regulators should make full use of abnormal main fund movement events as a clue in the case-selection process, so as to improve regulatory enforcement efficiency. Thirdly, investors should be fully aware of external shocks on the financial behaviors of listed firms, so as to support their investment decisions. The findings leave some interesting topics for future research. For instance, could event firms successfully avoid additional political costs imposed by the public after reducing earnings management? How long does the concerns and pressure imposed on the event firms last? The issues above remain to be further explored.

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Appendix I Distribution of Abnormal Main Fund Movements in Bull and Bear Markets (2004–2011)

Shenzhen Component Indices						Shanghai Composite Indices					
Top (Date/Indices)	Bottom (Date/Indices)	Up wave (Date/ Change rate)	Event (Firm)	Down wave (Date/ Change rate)	Event (Firm)	Top (Date/Indices)	Bottom (Date/Indices)	Up wave (Date/ Change rate)	Event (Firm)	Down wave (Date/Change rate)	Event (Firm)
Beginning	2004/1/2 3501.867	-		-		Beginning	2004/1/2 1517.193	-		-	
2004/4/7 4146.45	2005/12/9 2678.78	96 18.41%	8	611 –35.40%	36	2004/4/9 1783.01	2005/6/3 998.23	98 17.52%	8	420 –44.01%	23
2007/10/17 19203.11	2007/11/29 15189.4	677 616.86%	38	43 –20.90%	3	2007/6/1 4335.96	2007/7/9 3563.54	728 334.36%	36	38 –17.81%	3
2008/1/14 18955.5	2008/11/7 5598.21	46 24.79%	3	298 –70.47%	18	2007/10/19 6124.04	2008/10/30 1664.93	102 71.85%	10	377 –72.81%	20
2009/7/27 13465.72	2009/9/1 10387.42	262 140.54%	15	36 –22.86%	2	2009/7/31 3454.02	2009/9/30 2712.3	274 107.46%	22	61 –21.47%	4
2009/12/10 13763.63	2010/7/2 8945.2	100 32.50%	6	204 –35.01%	12	2009/11/27 3096.26	2010/6/22 2313.1	58 14.16%	3	207 –25.29%	12
2010/11/3 13388.37	2011/12/30 8918.816	124 49.67%	10	422 –33.38%	26	2010/11/3 3030.99	2011/12/30 2199.417	134 31.04%	12	422 –27.44%	36
Total		-	80	-	97	Total		-	91	-	98