

# 大陸投資限制與盈餘認列即時性之 不對稱

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## 摘要

本文主要探討公司盈餘認列壞消息即時性是否會隨著公司投資大陸之金額增加而提升。會計保守原則主要是指會計資訊一般反映市場之壞消息比市場之好消息快，此特質可以做為防止一般經理人操控盈餘的動機以及減緩經理人與股東之間的代理成本。台灣政府針對投資中國大陸金額依照淨值之比率所設定的上限，將使得投資大陸金額重大之公司法令敏感度以及監理成本增加。隨著投資大陸金額之增加，主管機關對於其財務報導將要求更穩健。本文發現大陸投資金額與盈餘認列時效呈現正向關係，支持 Watts (2003) 穩健原則可幫忙降低公司與主管機關間政治監理之敏感度。

**關鍵詞：**大陸投資限額、政治法令成本、會計穩健原則、盈餘認列即時性之不對稱性

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# Political Restrictions on Investments in China and Asymmetric Timeliness of Earnings

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## Abstract

The study investigates whether asymmetric timeliness of earnings will increase with the amount of investments in China. The government in Taiwan has attempted to brake the rapid expansion of commercial ties by placing some restrictions on investments in China. The government restricts cumulative investments in China to 20-40% of a firm's shareholder equity, depending on the firm's size. Following Basu (1997), accounting conservatism would impose stronger verification requirements for the recognition of economic gains than for the recognition of economic losses, leading to accounting earnings that reflect bad news more quickly than good news. Watts (2003) argues that conservatism can reduce the political costs imposed on standard setters and regulators. The results show that asymmetric timeliness increases as the investments in China increase, supporting Watts (2003).

**Keywords:** *Restrictions on investment in China, Political costs, Accounting conservatism, Asymmetric timeliness of earnings.*

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## 1. INTRODUCTION

Watts (2003) argues that conservatism can reduce the political costs imposed on standard setters and regulators. The underlying idea is that regulators or governments are more likely to be blamed if firms overstate net assets or income than if they understate net assets or income (Watts 1977). This provides incentives for regulators and standard-setters to demand high conservatism for firms with high political costs.

However, there is scant empirical evidence testing the impact of political regulations on asymmetric timeliness of earnings. Many researchers generally have used firm size to measure the firm's vulnerability to political costs. The usual finding is a positive relation between firm size and asymmetric timeliness of earnings. However, as size can also capture perspectives other than political costs, some researchers argue that the size proxy needs to be more explicitly linked to political costs (Ball and Foster 1982; Cahan 1992) or it might be difficult to interpret the results. The only exception is Bushman and Piotroski (2006), who test and find the influence of political institutions on conservative accounting. They find that firms in countries with high enforcements and strong judicial systems can reflect bad news in earning more quickly than firms in countries with low enforcements. As their measures are based on country level, my study would like to shed further lights by providing better mapping of the relation of political cost to the firm-level proxy.

I take advantage of a unique setting in Taiwan where the government in Taiwan imposes a political restriction on total investments in China. The government in Taiwan has attempted to brake the rapid expansion of commercial ties by placing some restrictions on investments in China. All the investment projects need to be approved by the government. Besides, the government restricts cumulative investments in China to 20-40% of a firm's shareholder equity, depending on the firm's size.

The fundamental agency relationship between the principle (e.g., Government) and agent (e.g., Company) means that financial reporting is expected to generate asymmetric timeliness of earnings (Watts 2003; Basu 1997). Political restrictions on investments in China represents government concern on "over-investments" in China, and their negative impacts on domestic economy in Taiwan. The public is out of the fear that "assets are shifted to China and the liabilities are kept in Taiwan". When the public does not welcome a large migration to China and is concerned with the financial health of firms investing in China, U.S. Securities and Exchange Commission (SEC) would impose more scrutiny and accounting conservatism on firms that have heavy ties to China. In addition, companies may take advantage of "related party transactions" to shift profits from Taiwan to China to increase the prospects of investment projects in China. This can increase the appeal of projects from China to financial institutions in Taiwan, and secure a low cost of

capital for investments in China. The SEC, which is in charge with financial reporting, would share these public concern. Thus, to rein in companies' tendency to favorably skew the information they supply, and to inflate the authorized amount of total investments in China, the SEC would demand a high degree of conservatism for companies with heavy investments in China.

To invest more in China, managers may have incentives to inflate the net assets and thus increase the capped amount of investments. The SEC, which is in charge with financial reporting, is concerned that excessive investments in China might result in assets located in China but liabilities situated in Taiwan. Thus, to rein in companies' tendency to favorably skew the information they supply, and to inflate the authorized amount of total investments in China, the SEC would demand a high degree of conservatism for companies with heavy investments in China.

This study extends previous research by explicitly considering the political environment and avoiding the firm size proxy common in previous research. Many studies have argued that the size proxy needs to be more explicitly linked to political costs (Ball and Foster 1982; Cahan 1992). Holding institutional factors constant, the investigation of a single country can complement other studies that use country institution to proxy for political environment (Bushman and Piotroski 2006). I apply an augmented Basu regression to investigate the relation between earnings conservatism and political costs. I measure the exposures to political sensitivity for each firm using the ratio of cumulative investments in China to the authorized upper limit to invest in China. I expect that as firms' investments in China increases, the government would feel more concerned and would demand more conservatism in the company's financial reporting. In line with my expectations, I find that asymmetric timeliness of earnings increases with the exposure to political sensitivities. To ensure the robustness of the results, I control for factors such as book-to-market ratio and leverage as these factors are associated with asymmetric timeliness, corporate governance such as managerial independence, independent director ownership, ownership structure, and institutional ownership, and I also use different measures of asymmetric timeliness of earnings. The results are generally consistent with the political explanations for accounting conservatism.

This paper is organized as follows. Section 2 provides the institutional backgrounds, and Section 3 summarizes related literature and develops the hypothesis. Section 4 reports the research methodology. Section 5 provides sample selection, descriptive analyses and empirical results. I provide additional analysis in Section 6 and conclude in Section 7.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENTS

### 2.1 ASYMMETRIC TIMELINESS OF EARNINGS AND EARNINGS CONSERVATISM

Basu (1997) describes earnings conservatism as the asymmetric timeliness of earnings in recognizing gains and losses.<sup>1</sup> Using Taiwanese data, Basu, Huang, Mitsudome and Weintrop (2005) also finds evidence of asymmetric timeliness of earnings. A number of studies have adopted Basu's model to investigate the economic consequences of conservatism. Ball, Kothari and Robin (2000) and Pope and Walker (1999) examine international variations in the asymmetric timeliness of earnings. Others investigate the relationship between accounting conservatism and corporate governance (Ahmed and Duellman 2007; Beekes, Pope and Young 2004; LaFond and Roychowdhury 2008), the role of asymmetric timeliness in private firms (Ball and Shivakumar 2005), information asymmetry and accounting conservatism (LaFond and Watts 2008), the role of asymmetric timeliness in debt markets and in debt contracting (Ball, Robin and Sadka 2008; Zhang 2008; Jayaraman and Shivakumar 2012) and acquisition-investment decisions (Francis and Martin 2010). In Taiwan context, many researchers also find evidence of asymmetric timeliness of earnings (e.g., Basu et al. 2005), and have explored its relationship with information asymmetry (Chi and Wang 2010), with directors' compensation (Hsu and Chan 2008), and with credit ratings (Lin, Chin and Lin 2009). These studies in general suggest the governance role of asymmetric timeliness of earnings.

Specifically, conservative accounting is a means of addressing moral hazard problem by constraining managers' opportunistic behaviors in reporting accounting measures (Watts 2003). With limited horizons and liability, managers might ignore welfare of other parties and even overstate current earnings and expected future cash flows, resulting in deadweight losses and agency costs (LaFond and Watts 2008). Empirical findings show

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<sup>1</sup> Conservatism has been defined in a variety ways. Some interpret conservatism as accountant's preference for accounting methods that lead to the "lowest" values for assets and revenues and the "highest" values for liabilities and expenses. Under this definition, it is likely that the "income-decreasing" accruals in current period can give rise to "income-increasing" accruals in the next period because of the mean-reversion accounting feature. In other words, conservative policies cannot persist over a long period. However, Basu (1997) argues that this definition is inconsistent with accounting practices. This study follows Basu (1997) definition of accounting conservatism which tests the speed to which "economic" events are mapped with "accounting" information. Ideally, over the firm horizon, all economic incomes should be equal to accounting incomes. However, accounting standards require higher verification to recognize economic gains than economic losses in accounts, which in turn create an asymmetric "mapping" system for economic gains and losses. In other words, economic losses tend to be recorded in accounting much quicker than economic gains. If economic events for current and next periods are independent, the speed to which current accounting reflects current economic events should not affect the speed to which next-period accounting reflects next-period economic events. Thus, mean-reversion issue is not a concern under Basu (1997) definition of accounting conservatism.

that conservative financial reporting could facilitate efficient contracting between managers and shareholders in the presence of agency problems (Ball 2001; Watts 2003; LaFond and Watts 2008; LaFond and Roychowdhury 2008). With the timely recognition of economic bad news and the deferral of economic good news, accounting conservatism can restrain the likelihood that managers tend to maximize reported earnings to inflate their compensation or to mislead investors. Ball and Shivakumar (2005) also argue that under conservative reporting, capital providers have incentives to make quick reactions to limit economic losses from poorly-performing investments.

## 2.2 POLITICAL COSTS

### 2.2.1 Literature

Watts and Zimmerman (1978, 1986 and 1990) defines political costs as expected costs or wealth transfers imposed on a firm from potential adverse political actions involving regulation, government tariffs, taxes, and so on. As researchers generally used firm size to measure the firm's vulnerability to political costs, results are difficult to interpret because of the crudeness of the size proxy. Ball and Foster (1982) argue that the size proxy needs to be more explicitly linked to political costs. Some prior studies explore alternative proxies for political costs. For instance, Sutton (1988) use profit margin to proxy for political costs because U.K. firms with excessively high profit margins were likely to come under the scrutiny of government regulators. Wong (1988) uses reported tax rates and export credit sales for political costs in New Zealand in the early 1980s to review to tax reform movements. He finds that the credit to sales method is preferred by large firms that attract political scrutiny because of their low tax rates. However, several concerns have been raised regarding limited sample sizes.

Watts (2003) and Qiang (2007) argue that conservatism can reduce the regulation and political costs imposed on standard setters and regulators. Losses from overvalued assets and overstated income are more observable and usable in the political process than foregone gains due to undervalued assets or understated income (Watts 1977, 67). Regulators and the government thus have incentives to avoid criticism from the public. If the public demand conservatism, the regulators tend to induce conservatism (Ball and Shivakumar 2005; Qiang 2007). However, the empirical evidence is not very clear with regard to the form of conservatism that the regulators can induce. Qiang (2007) find that regulators demand unconditional conservatism, even though Qiang (2007) claims that the form depends on the financial statement users' demand.<sup>2</sup> Ball and Shivakumar (2005)

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<sup>2</sup> Conditional conservatism refers to asymmetric timeliness of earnings. Unconditional conservatism relates to the understatement of book value relative to market value of net asset. Conditional conservatism depends on economic news and has contracting role whereas unconditional conservatism does not depend on news and has less effect on contracting.

suggest that most financial users prefer conditional conservatism because it can achieve contracting efficiency. Thus, it is expected that regulators should also impose conditional conservatism to fulfill the contracting demands of financial statement users. As no studies have examined the link between conditional conservatism and regulatory costs, my study can shed further lights on this issue.

### 2.2.2 Regulation costs for investments in China

Taiwan's tense relationship with China has presented the government with a dilemma over how to handle Taiwanese firms' ambitions for the Chinese market. The government has set up guidance to all bureaus to ensure a comprehensive control for investments in China. For example, the government has a preventive guidance for the cross-strait "proactive liberalization with effective management" policy (兩岸經貿積極管理、有效開放配套機制). The guidance is applicable to all dimensions of governmental affairs, ranging from agriculture, tourism, finance, economics, etc. According to the guidance, there are five approaches in the aspect of economy. The Chinese version of the guidance for the economy aspect can refer to Appendix 1.

- (1) If firms have investments in China, information on investment in Mainland China should be provided in the explanatory notes of financial statements.
- (2) Mainland Affairs Council, Ministry of Economy and Financial supervisory commission need to build up a database for all investments in China together to ensure effective management of investments in China.
- (3) Taiwan Stock Exchange Corporation (TWSE) and GreTai Securities market (OTC) need to include "cross-strait related party transactions" in their routine regulation and regulation by exception over financial and business affairs of listed firms.<sup>3</sup> The approach can affect all listed firms.

Specifically, routine regulation ("regularly-scheduled special audits") and regulation by exception ("special audits relating to material events") have been adopted by TWSE and OTC to "make advance preparations for operational crisis during ordinary times and to create the capacity to handle the occurrence of extraordinary events in a effective manner". This can protect the rights and interests of general investors. Usually, among those TWSE (OTC) listed firms, the TWSE (OTC) will select at least 10% of the firms to be audited based on their annual financial reports, at least 5% based on their half-year financial reports, at least 3% based on their first-quarter financial reports and at least 5% based on third-quarter financial reports. Each firm must be selected as an audited company at least once every five year. The regularly-scheduled special audits are mandated by the Financial

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<sup>3</sup> Please also see "臺灣證券交易所股份有限公司對上市公司財務業務平時及例外管理處理程序" and "財團法人中華民國證券櫃檯買賣中心就上櫃公司財務業務平時及例外管理處理程序".

Supervisory Commission (FSC; 金融管理委員會). After the companies subject to audit are selected, within 20 days after the deadline for the submission of financial reports, the TWSE and OTC shall submit the company names and the reasons for writing any special reports, to FSC for recordation. Special reports shall be completed, and then submitted to FSC for recordation.

- (4) The preventive guidance for the cross-strait “proactive liberalization with effective management” policy also requires intensive audits for firms with high investments in China or many projects in China.
- (5) Finally, the guidance requires TWSE and OTC to select firms subject to audit based on abnormal transactions between parent firm in Taiwan and subsidiaries in China. In particular, if any event occurs that would materially affect the financial condition of the parent firm, the TWSE shall produce an examination report on the impact of the material event on the company's operations or market, and then report to FSC for further handling.

To sum up, the government requires the TSEC and OTC to consider “cross-strait related party transactions”, “abnormal transactions between the parent firm in Taiwan and subsidiaries in China”, “firms with intensive investments in China or firms with many investment projects in China” in the procedures of “regularly-scheduled special audits” and “special audits relating to material events” over financial and business affairs of listed firms (財務業務平時及例外管理處理程序). These suggest that regulation costs for listed firms can increase with their investments in China.

### 2.3 HYPOTHESES DEVELOPMENT

In this study, I examine whether accounting conservatism can address the political costs for each firm. The political tension between China and Taiwan has long been regarded as one important impediment for the investments in China by Taiwanese firms. The volume of economic activities between Taiwan and Mainland China has increased dramatically in the past decade. From the statistical data of FSC, the percentage of accumulated amount firms remit back to Taiwan is 8.39% of total accumulated amount that enterprises have invested in China.<sup>4</sup> However, the government in Taiwan has long struggled to brake the rapid expansion of economic ties because of the political tensions between the Taiwan Strait. The government in Taiwan is trying to seek a balance between economic benefits and national security. While it is inevitably a global trend to invest in China, Taiwan's authority is worried about Taiwan's over-reliance on China. The government, therefore, set up some restrictions on investments in China for each firm.

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<sup>4</sup> FSC, Executive Yuan reports that 910 firms public offering in Taiwan invested in China, and the total accumulated amount is NT\$794.3 billion until the third quarter in 2008.



More specifically, all investments should make an application and get an approval and the total capital flows can only be limited to approximately 20- 40% of the net worth for each firm, subject to the capital amounts.<sup>5</sup> Exhibit 1 details the rules for each type of firms. One reason why Taiwan's government restricts investments in China is out of fear that the shift of production to China could give rise to "hollowing out" effects in Taiwan, which in turn could lead to the loss of manufacturing jobs. Another concern for investments in China is that large investments can lead to shortages of capital and jeopardize the competitiveness of local industry following the hollowing out theory (Deng 2000). In addition, dependence by Taiwan-based firms on China can help China gain unwelcomed political leverage over Taiwan, and might attract greater political scrutiny.

**EXHIBIT 1 The Limits on Investment in China (2002~2008/7)**

Category	Net worth	Upper limit of accumulated amount or proportion of net worth invested in China (NT dollars)
A. individual and small- or medium-sized firms		80 million
B. firms with capital exceeding 80 million	Less than 5 billion	40 % of net worth or 80 million (choose higher one).
	Between 5 and 10 billion	Accumulated amount 1. below 5 billion: 40 % of net worth. 2. excess 5 billion: 30 % of net worth.
	More than 10 billion	Accumulated amount 1. below 5 billion: 40 % of net worth. 2. between 5 billion and 10 billion: 30 % of net worth. 3. excess 10 billion: 20 % of net worth.

Specifically, I expect that SEC would demand accounting conservatism as the amount of investments in China increases. First, as political climate in Taiwan focuses extensively on the appropriateness for companies to invest heavily in China, the regulatory authority for financial reporting might be subject to high political costs from the public when facing any accounting frauds related to "hollowing out" concern. For instance, the public is out of the fear that "assets are shifted to China and the liabilities are kept in Taiwan". When the public does not welcome a large migration to China and is concerned with the financial health of firms investing in China, SEC would impose more scrutiny and accounting conservatism on firms that have heavy ties to China.

<sup>5</sup> The government set up some restrictions on investment in China for each firm. The first policy applies to all public firms and relate to the upper limit for the aggregate amount of investments in China. The second policy is to prevent some industries with high competitiveness to shift to China. This can avoid the speed of hollowing out. My study only focuses on the empirical evidence for the first policy: the upper limit on the investment in China.

Second, the SEC has no direct investigation power on operations in China. To reduce the public blame, SEC has currently required all firms that have investments in China to disclose the details in the notes to financial statements. In addition, the preventive guidance for the cross-strait “proactive liberalization with effective management” policy requires intensive audits for firms with high investments in China or many projects in China. The guidance requires TWSE and OTC to select firms subject to audit based on “abnormal transactions” between parent firm in Taiwan and subsidiaries in China, and “intensive investments” in China. Companies may shift profits from Taiwan to China to increase the prospects of investment projects in China, which allows them to acquire more sources of debt financing from Taiwan and the likelihood to invest more in China. Thus, to reduce companies’ tendency to favorably skew the information they supply, and to inflate the authorized amount of total investments in China, the SEC would require companies to display a high degree of conservatism for companies with heavy investments in China. Thus, the regulation costs can increase with their investments in China.

Watts and Zimmerman (1986) argue that companies are vulnerable to wealth-extracting political transfers in the form of regulation. Shaffer and Russo (1998) also argue that government actions (e.g., costs due to restatements and SEC investigations) can have a profound effect on corporate competitiveness, and reputations. As such, to meet the SEC’s demands, managers have incentives to be conservative in order to appear to be in compliance and reduce the political interventions. Thus, I expect that accounting is getting more conservative as the amount of investments in China increases, reaching the authorized limit.

**H1: Asymmetric timeliness of earnings is positively associated with the ratio of investments in China to the authorized limits.<sup>6</sup>**

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<sup>6</sup> This study argues that the regulation costs (political costs) can increase with the amount of investments in China. The study does not assert that only firms that reach the investment limit have regulation costs. Instead, firms in general are exposed to political costs as long as they have investments in China, but the degree of political costs can rise as their exposures to investments in China approach the authorized limits. While in the main tests the investments in China are scaled with the “authorized limits” for each firm, I also use different scales (i.e., total assets, total shareholders’ equity and total investments) for the total investments in China. The results are the same.

### 3. RESEARCH METHOD

#### 3.1 ACCOUNTING CONSERVATISM: BASU (1997)

Following Basu (1997), conservative reporting is defined as the differential verifiability for the recognition of economic gains and losses. Accountants tend to recognize bad news quicker than good news. Consistent with prior studies, I use the asymmetric timeliness of earnings based on Basu (1997) to measure for accounting conservatism.

$$NI_{i,t} = \beta_0 + \beta_1 DR_{i,t} + \beta_2 R_{i,t} + \beta_3 R_{i,t} \times DR_{i,t} + \varepsilon_{i,t}, \quad (1a)$$

where  $NI_{i,t}$  is consolidated net income scaled by share price at the beginning of the fiscal year end;  $R_{i,t}$  is the annual return of firm  $i$  over the 12-month interval from the fifth month of fiscal year  $t$  till the fourth month of fiscal year  $(t+1)$ .  $DR_{i,t}$  is a dummy variable taking the value one when  $R_{i,t}$  is negative, zero otherwise.

In Model 1a, accounting earnings regresses on stock returns, a proxy for economic news. As conservatism requires that accounting earnings capture bad news much more quickly than good news,  $DR_{i,t}$  is added to vary coefficient on positive stock returns (a proxy for good news) and negative stock returns (a proxy for bad news). The intercept captures the cost of equity and the effect of prior year news and  $\beta_1$  has an expected value of zero. The slope coefficient  $\beta_2$  indicates the earnings response coefficient to gains (good news);  $\beta_3$  is the incremental earnings response to losses (bad news). Under Basu (1997), asymmetric timeliness of earnings can be observed if  $\beta_3$  is positive.

In order to test the relation between the exposure to political costs and the timely loss recognition, I also apply an augmented reverse return-earnings regression to capture the asymmetric nature of earnings. In my augmented model (Model 2a), I interact all variables in Model 1a with  $LIMIT_{i,t}$ .  $LIMIT_{i,t}$  is the accumulated amount of money invested in China divided by the official limited amount of investments in China, representing the extent to which the investment deviates from the government authorized limits.

$$NI_{i,t} = \beta_0 + \beta_1 DR_{i,t} + \beta_2 R_{i,t} + \beta_3 R_{i,t} \times DR_{i,t} + \beta_4 LIMIT_{i,t-1} + \beta_5 DR_{i,t} \times LIMIT_{i,t-1} + \beta_6 R_{i,t} \times LIMIT_{i,t-1} + \beta_7 R_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1} + \varepsilon_{i,t}. \quad (2a)$$

$\beta_6$  measures the association of the timeliness of good news with  $LIMIT_{i,t}$ .  $\beta_7$  measures the association of the asymmetric timeliness of bad news with  $LIMIT_{i,t}$ . I expect  $\beta_7$  to be positively related to the level of asymmetric timeliness of earnings.

## 3.2 CONTROL FOR OPENING NET ASSETS AND LEVERAGE

### 3.2.1 Book-to-market ratio

Book-to-market ratio ( $BM_{i,t}$ ) has been widely used as a proxy for ex-ante conservatism in accounting studies and as a measure of firm growth in finance literature. Pope and Walker (2003) and Roychowdhury and Watts (2007) argue that the level of asymmetric timeliness of earnings (ex-post conservatism) is constrained by the level of opening net assets (ex-ante conservatism). As ex-ante conservatism results in the understatement of book value of equity relative to market value of equity, firms would have less capacity to write-off assets and recognize bad news timely. In order to explore whether the association between asymmetric timeliness of earnings and  $LIMIT_{i,t}$  is affected by opening net assets, I control for book-to-market ratio ( $BM_{i,t}$ ) at the beginning period.

### 3.2.2 Debt

Prior research indicates that accounting conservatism control agency costs of debt (Ball et al. 2000; Watts 2003) and finds that greater conservatism is associated with greater leverage (Khan and Watts 2009; Jayaraman and Shivakumar 2012). According to Watts (2003), debt contracting has been the main potential source of the demand for conservative reporting. Zhang (2008) shows that firms with more conservative accounting are more likely to violate covenants. Accounting conservatism provides ex post contracting benefits to lenders by allowing them to renegotiate loan terms when the borrower's financial position deteriorates. Therefore, I further control for leverage ( $LEV_{i,t}$ ) to ensure the robustness of my tests. I expect greater leverage is associated with higher earnings conservatism.

### 3.2.3 Size

Prior studies (e.g., LaFond and Watts 2008; Khan and Watts 2009) argue that larger firms tend to have richer information environments because of more analysts following. Larger firms are more likely to have lower information asymmetry than smaller firms, suggesting a lower contracting demand for conservatism from larger firms. However, Watts and Zimmerman (1986) and Watts (2003) also argue that larger firms are more likely to have higher litigations costs because of the higher visibility in the public and the higher media coverage. This suggests a higher litigation demand for accounting conservatism for large firms than small firms. Thus, I control for size ( $SIZE_{i,t}$ ) in the regressions but do not predict the direction for the sign.

The extended regressions for Model 1a and Model 2a are thus as follows:

$$\begin{aligned}
NI_{i,t} = & \beta_0 + \beta_1 DR_{i,t} + \beta_2 R_{i,t} + \beta_3 R_{i,t} \times DR_{i,t} + \beta_4 BM_{i,t-1} + \beta_5 DR_{i,t} \times BM_{i,t-1} \\
& + \beta_6 R_{i,t} \times BM_{i,t-1} + \beta_7 R_{i,t} \times DR_{i,t} \times BM_{i,t-1} + \beta_8 LEV_{i,t} + \beta_9 DR_{i,t} \times LEV_{i,t} \\
& + \beta_{10} R_{i,t} \times LEV_{i,t} + \beta_{11} R_{i,t} \times DR_{i,t} \times LEV_{i,t} + \beta_{12} SIZE_{i,t} + \beta_{13} DR_{i,t} \times SIZE_{i,t} \\
& + \beta_{14} R_{i,t} \times SIZE_{i,t} + \beta_{15} R_{i,t} \times DR_{i,t} \times SIZE_{i,t} + \varepsilon_{i,t}.
\end{aligned} \tag{3a}$$

$$\begin{aligned}
NI_{i,t} = & \beta_0 + \beta_1 DR_{i,t} + \beta_2 R_{i,t} + \beta_3 R_{i,t} \times DR_{i,t} + \beta_4 LIMIT_{i,t-1} + \beta_5 DR_{i,t} \times LIMIT_{i,t-1} \\
& + \beta_6 R_{i,t} \times LIMIT_{i,t-1} + \beta_7 R_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1} + \beta_8 BM_{i,t-1} \\
& + \beta_9 DR_{i,t} \times BM_{i,t-1} + \beta_{10} R_{i,t} \times BM_{i,t-1} + \beta_{11} R_{i,t} \times DR_{i,t} \times BM_{i,t-1} \\
& + \beta_{12} LEV_{i,t-1} + \beta_{13} DR_{i,t} \times LEV_{i,t-1} + \beta_{14} R_{i,t} \times LEV_{i,t-1} \\
& + \beta_{15} R_{i,t} \times DR_{i,t} \times LEV_{i,t-1} + \beta_{16} SIZE_{i,t} + \beta_{17} DR_{i,t} \times SIZE_{i,t} + \beta_{18} R_{i,t} \times SIZE_{i,t} \\
& + \beta_{19} R_{i,t} \times DR_{i,t} \times SIZE_{i,t} + \varepsilon_{i,t}.
\end{aligned} \tag{4a}$$

## 4. EMPIRICAL RESULTS

### 4.1 SAMPLE SELECTION AND DESCRIPTIVE STATISTICS

The sample is based on all listed firms in Taiwan on the Taiwan Stock Exchange Corporation (TSE). As the main focus of the study is on the restrictions of “investment in China”, I first collect the module of “investments in China” from Taiwan Economic Journal database (TEJ). I exclude companies in the financial industry as it is a highly regulated sector that adopts different accounting practices. Initially I obtained 5,276 observations for non-financial firms listed on the TSE during the period 2002-2007. I then eliminate 859 observations that have missing value for the “accumulated amount of investments in China” and the “authorized amount to invest in China by the government”. I also require the availability of accounting data, stock returns and corporate governance data from TEJ. This procedure further excludes 627 observations. Thus, I end up with 3,790 observations with complete data. Finally, to reduce the effects of extreme values, I trim the top and bottom 1% of the variable. This removes 164 observations. The final sample thus consists of 3,623 observations. The sample details can refer to Table 1.

**TABLE 1 Sample Collection**

Firm-year cases for non-financial firms listed on the Taiwan Stock Exchange Corporation (TSE) from 2002-2007 for which Taiwan Economic Journal database(TEJ) provides the module of “investments in China”	5,276
Less: firms that have missing data for the investment ratio relative to the approved amount	859
Less: firms that have missing data for accounting data, return data and governance data	627
	3,790
Less: observations in the top and bottom 1% of each variables (earnings, return, market value and book-to-market ratio)	(164)
Firm-year cases used in the study	3,626

Table 2 reports descriptive statistics of main variables. The mean (median) values for  $NI_{i,t}$  and  $R_{i,t}$  are 0.029 (0.063) and 0.132 (0.043), respectively. The median values of  $BM_{i,t-1}$ ,  $LEV_{i,t}$  and  $SIZE_{i,t}$  are 0.784, 0.466 and 14.988, respectively. The proxy for political sensitivity is the ratio of accumulated amount invested in China to the authorized limits ( $LIMIT_{i,t-1}$ ). The mean value of  $LIMIT_{i,t-1}$  is 42%.<sup>7</sup>

**TABLE 2 Descriptive Statistics**

variables	N	Mean	Std. Dev.	Q1	Median	Q3
$R_{i,t}$	3,626	0.132	0.481	-0.194	0.043	0.345
$NI_{i,t}$	3,626	0.029	0.148	0.014	0.063	0.103
$OCF_{i,t}$	3,626	0.091	0.142	0.023	0.088	0.162
$ACCRUAL_{i,t}$	3,626	-0.057	0.163	-0.112	-0.033	0.022
$DR_{i,t}$	3,626	-0.112	0.169	-0.194	0	0
$DCFO_{i,t}$	3,626	-0.028	0.171	0	0	0
Control variables:						
$BM_{i,t-1}$	3,626	0.914	0.599	0.511	0.784	1.16
$LEV_{i,t}$	3,626	0.456	0.161	0.343	0.466	0.568
$SIZE_{i,t}$	3,626	15.144	1.468	14.130	14.988	15.988
Indicators for investment in China:						
$LIMIT_{i,t-1}$	3,626	0.42	0.307	0.134	0.341	0.606
Governance factors:						
$NDUAL_{i,t}$	3,626	0.697	0.46	0	1	1
$PYRAM_{i,t}$	3,626	0.748	0.434	0	1	1
$CROSSHOLD_{i,t}$	3,626	0.771	0.42	1	1	1
$INST_{i,t}$	3,626	0.124	0.159	0	0	0.286
$INDEP_{i,t}$	3,626	0.341	0.21	0.175	0.306	0.488

$R_{i,t}$  is the annual return over the 12-month interval from the fifth month of fiscal year  $t$  till the fourth month of fiscal year  $(t+1)$ ;  $NI_{i,t}$  is consolidated net income scaled by beginning-of-period market value of equity;  $CFO_{i,t}$  is operating cash flows from the cash flow statement at time  $t$ ;  $ACCRUAL_{i,t}$  is the difference between consolidated net income and operating cash flows for period  $t$ ;  $DR_{i,t}$  is a dummy variable that takes the value of one when  $R_{i,t}$  is negative, and zero otherwise;  $DCFO_{i,t}$  is a dummy variable that takes the value of one when  $CFO_{i,t}$  is negative, and zero otherwise;  $BM_{i,t-1}$  is the book-to-market ratio of firm  $i$  at the beginning of the period;  $LEV_{i,t}$  is the ratio of total liability to total assets at the period  $t$ ;  $SIZE_{i,t}$  is the natural logarithm of market value of total assets at time  $t$ .  $LIMIT_{i,t-1}$  is the percentage of the accumulated amount of money invested in China to the official limit at the beginning period of fiscal year  $t$ ;  $NDUAL_{i,t}$  is a dummy indicator taking the value 1 if CEO is not the President and 0 otherwise at the period  $t$ ;  $INDEP_{i,t}$  is the proportion of independent directors on the board at period  $t$ ;  $CROSSHOLD_{i,t}$  is a dummy indicator taking the value 0 if companies have cross-holdings within the affiliated group and 1 otherwise at the period  $t$ ;  $PYRAM_{i,t}$  is a dummy indicator taking the value 0 if the ownership structure of the firm is part of the pyramid structure and 1 otherwise at the period  $t$ ;  $INST_{i,t}$  is the shareholdings of institutional shareholders at the period  $t$ .

<sup>7</sup> The maximum value of  $LIMIT_{i,t-1}$  is 1. The mean value of  $LIMIT$  is 0.89 for the observations on the fourth quartile of  $LIMIT$  ( $LIMIT > 0.606$ ).

Table 3 reports the Pearson product-moment and Spearman rank-order correlations between the variables. The findings of Pearson and Spearman correlations are generally similar.  $R_{i,t}$  is negatively correlated with  $LIMIT_{i,t-1}$ .

**TABLE 3 Correlation Matrix**

	$R_{i,t}$	$NI_{i,t}$	$OCF_{i,t}$	$ACCRUAL_{i,t}$	$BM_{i,t-1}$	$Lev_{i,t}$	$LIMIT_{i,t-1}$
$R_{i,t}$	1.00	0.55	0.28	0.09	0.17	-0.11	-0.05
	.	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
$NI_{i,t}$	0.36	1.00	0.36	0.33	-0.19	-0.18	-0.07
	0.00	-	(0.00)	(0.00)	(0.00)	(0.00)	0.00
$OCF_{i,t}$	0.25	0.32	1.00	-0.65	0.15	-0.10	0.05
	0.00	(0.00)	-	(0.00)	(0.00)	(0.00)	(0.01)
$ACCRUAL_{i,t}$	0.08	0.56	-0.61	1.00	-0.32	-0.09	-0.12
	0.00	(0.00)	(0.00)	-	(0.00)	(0.00)	(0.00)
$BM_{i,t-1}$	0.17	-0.31	0.12	-0.36	1.00	0.12	0.12
	0.00	(0.00)	(0.00)	(0.00)	-	(0.00)	(0.00)
$LEV_{i,t}$	-0.08	-0.25	-0.11	-0.11	0.09	1.00	0.19
	0.00	(0.00)	(0.00)	(0.00)	(0.00)	-	(0.00)
$LIMIT_{i,t-1}$	-0.03	-0.11	0.01	-0.10	0.09	0.19	1.00
	0.06	(0.00)	(0.64)	(0.00)	(0.00)	(0.00)	-

1.  $R_{i,t}$  is the annual return over the 12-month interval from the fifth month of fiscal year  $t$  till the fourth month of fiscal year  $(t+1)$ ;  $NI_{i,t}$  is consolidated net income scaled by beginning-of-period market value of equity;  $CF_{i,t}$  is operating cash flows from the cash flow statement at time  $t$ ;  $Accrual_{i,t}$  is the difference between net income and operating cash flows for period  $t$ ;  $BM_{i,t-1}$  is the book-to-market ratio of firm  $i$  at the beginning of the period  $t$ ;  $LEV_{i,t}$  is the ratio of total liability to total assets at the period  $t$ ;  $LIMIT_{i,t-1}$  is the percentage of the accumulated amount of money invested in China to the official limit at the beginning period of fiscal year  $t$ .

2. Pearson (Spearman) correlation coefficients are below (above) the diagonal. Two-tailed  $p$ -values are in parentheses.

## 4.2 REGRESSION ANALYSES

I report the results of asymmetric timeliness of earnings with respect to  $LIMIT_{i,t-1}$  in Table 4. Model 1a reports the basic results of asymmetric timeliness model in Basu (1997) and the coefficient on  $R_{i,t} \times DR_{i,t}$  is 0.190, significantly at the 1% level, confirming the evidence of asymmetric timeliness. Model 2a reports the asymmetric timeliness results with respect to  $LIMIT_{i,t-1}$ . The coefficient on  $R_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1}$  is 0.030 ( $t=3.10$ ), which suggests that a higher degree of accounting conservatism is positively associated with the level of political sensitivity in the investments of China. However, note that the coefficient on  $R_{i,t} \times DR_{i,t}$  from Model 2a is insignificant after controlling for  $LIMIT_{i,t-1}$ . This raises a serious concern whether “political costs” explanation can dominate all other explanations for conservatism or whether  $LIMIT_{i,t-1}$  capture some proxies for other explanations of conservatism (i.e.,  $BM_{i,t-1}$ ,  $LEV_{i,t}$  and  $SIZE_{i,t}$ ), for which prior literature has documented a significant relation with asymmetric timeliness.

**TABLE 4 Asymmetric Timeliness of Earnings and the Ratio between Investment Amount and the Approved Amount for Investments in China: Estimation of the Basu (1997)**

	Model 1a: $NI_{i,t}$		Model 2a: $NI_{i,t}$		Model 3a: $NI_{i,t}$		Model 4a: $NI_{i,t}$	
	Coeff	<i>t</i> -value	Coeff	<i>t</i> -value	Coeff	<i>t</i> -value	Coeff	<i>t</i> -value
Intercept	0.049	(12.05) <sup>***</sup>	0.063	(9.05) <sup>***</sup>	0.082	(6.36) <sup>***</sup>	0.077	(5.54) <sup>***</sup>
$DR_{i,t}$	-0.010	(-1.36)	-0.031	(-2.24) <sup>*</sup>	0.022	(1.06)	0.010	(0.44)
$R_{i,t}$	0.046	(6.72) <sup>***</sup>	0.043	(3.48) <sup>***</sup>	-0.006	(-0.21)	-0.006	(-0.21)
$R_t \times DR_{i,t}$	0.190	(7.38) <sup>***</sup>	0.052	(1.18)	0.072	(1.05)	0.004	(0.06)
$LIMIT_{i,t-1}$			-0.003	(-1.94)			0.001	(0.77)
$DR_t \times LIMIT_{i,t-1}$			0.005	(1.66)			0.003	(1.12)
$R_t \times LIMIT_{i,t-1}$			0.001	(0.31)			-0.000	(-0.03)
$R_t \times DR_t \times LIMIT_{i,t-1}$			0.030	(3.10) <sup>**</sup>			0.015	(2.04) <sup>*</sup>
$BM_{i,t-1}$					-0.011	(-7.26) <sup>***</sup>	-0.011	(-7.27) <sup>***</sup>
$DR_t \times BM_{i,t-1}$					-0.004	(-1.55)	-0.005	(-1.63)
$R_t \times BM_{i,t-1}$					0.007	(2.37) <sup>*</sup>	0.007	(2.34) <sup>*</sup>
$R_t \times DR_t \times BM_{i,t-1}$					0.022	(2.06) <sup>*</sup>	0.017	(1.88)
$LEV_{i,t}$					-0.007	(-3.85) <sup>***</sup>	-0.007	(-4.04) <sup>***</sup>
$DR_t \times LEV_{i,t}$					0.001	(0.23)	0.000	(0.13)
$R_t \times LEV_{i,t}$					0.002	(0.50)	0.001	(0.51)
$R_t \times DR_t \times LEV_{i,t}$					0.025	(2.81) <sup>**</sup>	0.020	(2.63) <sup>**</sup>
$SIZE_{i,t}$					0.008	(4.35) <sup>***</sup>	0.008	(4.53) <sup>***</sup>
$DR_t \times SIZE_{i,t}$					-0.003	(-1.06)	-0.002	(-0.92)
$R_t \times SIZE_{i,t}$					0.002	(0.51)	0.002	(0.51)
$R_t \times DR_t \times SIZE_{i,t}$					-0.011	(-1.28)	-0.008	(-1.00)
Observations	3,626		3,626		3,626		3,626	
Adjusted $R^2$	0.133		0.145		0.281		0.321	

1. Each of the regression coefficients reported above is the average of the coefficient estimates for the 10 years from 1998 to 2007.
2.  $R_{i,t}$  is the annual return over the 12-month interval from the fifth month of fiscal year  $t$  till the fourth month of fiscal year  $(t+1)$ ;  $NI_{i,t}$  is consolidated net income scaled by beginning-of-period market value of equity;  $CFO_{i,t}$  is operating cash flows from the cash flow statement at time  $t$ ;  $LIMIT_{i,t-1}$  is the percentage of the accumulated amount of money invested in China to the official limit at the beginning period of fiscal year  $t$ ;  $BM_{i,t-1}$  is the decile rank of the book-to-market ratio of firm  $i$  at the beginning of the period  $t$ ;  $LEV_{i,t}$  is the decile rank of the ratio of total liability to total assets at the period;  $SIZE_{i,t}$  is the decile rank of the natural logarithm of market value of total assets at time  $t$ .
3. Heteroskedasticity consistent  $t$ -statistics are in parentheses. <sup>\*\*\*</sup>, <sup>\*\*</sup>, <sup>\*</sup> indicate statistical significance at 1%, 5% and 10% level respectively for one-tailed  $t$ -tests of coefficients with predicted signs and two-tailed  $t$ -tests otherwise.

To address the concern, Model 3a extends Model 1a by controlling for  $BM_{i,t-1}$ ,  $LEV_{i,t}$  and  $SIZE_{i,t}$ . The results show that asymmetric timeliness of earnings with respect to  $BM_{i,t-1}$  (0.022,  $t=2.06$ ) and  $LEV_{i,t-1}$  (0.025,  $t=2.81$ ) are significantly positive, consistent with Roychowdhury and Watts (2007) and LaFond and Roychowdhury (2008). The results suggest that the level of asymmetric timeliness of earnings is constrained by the level of



opening net assets, and that conservatism facilitates efficient debt contracting as Watts (2003) proposes. However, I do not find any significance for the coefficient on  $R_{i,t} \times DR_{i,t} \times SIZE_{i,t}$ . This might explain the lack of consensus on the coefficient sign, given that litigation theory predicts a positive sign and the information theory predicts a negative sign (Khan and Watts 2009).

Finally, Model 4a extends Model 2a by controlling for  $BM_{i,t-1}$ ,  $LEV_{i,t}$  and  $SIZE_{i,t}$ . While the results shows that controlling for  $BM_{i,t-1}$ ,  $LEV_{i,t}$  and  $SIZE_{i,t}$  can reduce the coefficient on  $R_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1}$ , the coefficient on  $R_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1}$  (0.015,  $t=2.04$ ) remains significantly positive. In addition, when comparing Model 3a and Model 4a, the explanatory power for Model 3a increases from 28% to 32%. This suggests that  $LIMIT_{i,t-1}$  can increase the explanatory power of asymmetric timeliness. Also, the coefficient magnitude on  $R_t \times DR_t \times BM_{i,t-1}$ ,  $R_t \times DR_t \times LEV_{i,t}$  and  $R_t \times DR_t \times SIZE_{i,t}$  slightly reduces after controlling for  $LIMIT_{i,t-1}$ . Thus, in line with Watts (2003) and Qiang (2007), Model 4a support H1 that political or regulation costs is an important explanation for the existence of accounting conservatism, after taking into consideration of the ex-ante conservatism (as measured by  $BM_{i,t-1}$ ), debt contracting theory (as measured by  $LEV_{i,t}$ ), litigation and information explanations (as measured by  $SIZE_{i,t}$ ).

## 5. ADDITIONAL ANALYSIS

### 5.1 OTHER MEASURES OF ACCOUNTING CONSERVATISM

While Basu (1997) measure has been extensively used, recently some studies have questioned the validity of Basu (1997) as a measure of accounting conservatism. Such studies include Dietrich, Muller and Riedl (2007) and Patatoukas and Thomas (2011), which suggest that asymmetric timeliness of earnings can arise from econometric phenomena associated with the partitioning of data with respect to the sign of equity return. Specifically, Dietrich et al. (2007) argue that partitioning share-return and earnings data by the sign of share return can give a positive Basu coefficient even in the absence of accounting conservatism. Patatoukas and Thomas (2011) report that association between return volatility and the probability of a loss can cause a bias in the Basu coefficient large enough to induce an apparent sensitivity difference for lagged earnings with respect to return, which cannot be due to conditional conservatism. They both suggest that using positive (negative) stock returns as a proxy for good (bad) news might give rise to biased evidence.

Thus, to address this concern, many studies use the measure developed by Ball and Shivakumar (2005) to measure accounting conservatism or asymmetric timeliness of earnings. Different from the measure in Basu (1997), this measure does not use equity returns. The measure is based on the difference between the sensitivity of accruals to

negative CFO and the sensitivity of accruals to positive CFO. The rationale for this measure is that events that affect time- $t$  CFO also affect time- $t$  expectations about post-time- $t$  CFO, and that the response of time- $t$  accruals to time- $t$  CFO can therefore be interpreted as indicative of the timeliness with which accounting recognizes those events. Under conditional conservatism, the accounting recognition of bad news, giving rise to negative CFO, is more timely than the accounting recognition of good news, giving rise to positive CFO, and it is therefore expected that the response of accruals to negative CFO will be larger than the response to positive CFO. The accruals-CFO-based measure of conditional conservatism is given by the following regression model:

$$ACC_{i,t} = \beta_1 + \beta_2 DCFO_{i,t} + \beta_3 CFO_{i,t} + \beta_4 CFO_{i,t} \times DCFO_{i,t} + \varepsilon_{1,i,t}, \quad (1b)$$

where:  $ACC_{i,t}$  is accruals for firm  $i$  for the accounting period ended at balance-sheet date  $t$ , scaled by beginning-of-period total assets;  $CFO_{i,t}$  is CFO for firm  $i$  for the accounting period ended at balance-sheet date  $t$ , scaled by beginning-of-period total assets;  $DCFO_{i,t}$  is a dummy variable that takes the value of one where  $CFO_{i,t}$  is negative and zero otherwise; and other notation is as previously defined.  $\beta_4$  indicates whether the response of accruals to contemporaneous CFO is greater for negative CFO than for positive CFO:  $\beta_4 > 0$  implies more timely recognition of bad news than of good news, consistent with conditional accounting conservatism.

The addition of political restrictions ( $LIMIT_{i,t-1}$ ) and the interaction terms in Model 1b enables us to observe the effect of political costs on conditional conservatism as measured by the accruals-CFO-based measure:

$$\begin{aligned} ACC_{i,t} = & \beta_1 + \beta_2 DCFO_{i,t} + \beta_3 CFO_{i,t} + \beta_4 CFO_{i,t} \times DCFO_{i,t} + \beta_5 LIMIT_{i,t-1} \\ & + \beta_6 LIMIT_{i,t-1} \times DCFO_{i,t} + \beta_7 CFO_{i,t} \times LIMIT_{i,t-1} \\ & + \beta_8 CFO_{i,t} \times LIMIT_{i,t-1} \times DCFO_{i,t} + \varepsilon_{1,i,t}. \end{aligned} \quad (2b)$$

where notation is as previously defined.  $\beta_8 > 0$  indicates that conditional conservatism measured by reference to the response of accruals to cash flows is positively associated with exposures to political costs.

Model 3b controls for  $BM_{i,t-1}$ ,  $LEV_{i,t}$ , and  $SIZE_{i,t}$ .

$$\begin{aligned} ACC_{i,t} = & \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t} \times DCFO_{i,t} + \beta_4 BM_{i,t-1} \\ & + \beta_5 DCFO_{i,t} \times BM_{i,t-1} + \beta_6 CFO_{i,t} \times BM_{i,t-1} + \beta_7 CFO_{i,t} \times DCFO_{i,t} \times BM_{i,t-1} \\ & + \beta_8 LEV_{i,t} + \beta_9 DCFO_{i,t} \times LEV_{i,t} + \beta_{10} CFO_{i,t} \times LEV_{i,t} + \beta_{11} CFO_{i,t} \times DCFO_{i,t} \times LEV_{i,t} \\ & + \beta_{12} SIZE_{i,t} + \beta_{13} DCFO_{i,t} \times SIZE_{i,t} + \beta_{14} CFO_{i,t} \times SIZE_{i,t} \\ & + \beta_{15} CFO_{i,t} \times DCFO_{i,t} \times SIZE_{i,t} \\ & + \varepsilon_{i,t}. \end{aligned} \quad (3b)$$

$$\begin{aligned}
ACC_{i,t} = & \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t} \times DCFO_{i,t} + \beta_4 LIMIT_{i,t-1} \\
& + \beta_5 DCFO_{i,t} \times LIMIT_{i,t-1} + \beta_6 CFO_{i,t} \times LIMIT_{i,t-1} \\
& + \beta_7 CFO_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1} + \beta_8 BM_{i,t-1} + \beta_9 DCFO_{i,t} \times BM_{i,t-1} \\
& + \beta_{10} CFO_{i,t} \times BM_{i,t-1} + \beta_{11} CFO_{i,t} \times DCFO_{i,t} \times BM_{i,t-1} + \beta_{12} LEV_{i,t} \\
& + \beta_{13} DCFO_{i,t} \times LEV_{i,t} + \beta_{14} CFO_{i,t} \times LEV_{i,t} + \beta_{15} CFO_{i,t} \times DCFO_{i,t} \times LEV_{i,t} \\
& + \beta_{16} SIZE_{i,t} + \beta_{17} DCFO_{i,t} \times SIZE_{i,t} + \beta_{18} CFO_{i,t} \times SIZE_{i,t} \\
& + \beta_{19} CFO_{i,t} \times DCFO_{i,t} \times SIZE_{i,t} + \varepsilon_{i,t}.
\end{aligned} \tag{4b}$$

Table 5 reports the results. First, Model 1b gives a conditional-conservatism measure based on the response of accruals to CFO. Consistent with Ball and Shivakumar (2005), the coefficient on  $CFO_{i,t} \times DCFO_{i,t}$  in Model 1b is significantly positive (0.310,  $t=2.90$ ). The results indicate the evidence of conditional conservatism. Second, in model 2b, the coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times LIMIT_{i,t-1}$  is significantly positive (0.062,  $t=3.57$ ). Inclusion of the measure for political sensitivity shows that asymmetric timeliness of earnings is more pronounced for politically sensitive firms. This supports H1. In Model 3b, I control for  $BM_{i,t-1}$ ,  $LEV_{i,t}$ , and  $SIZE_{i,t}$  in Model 1b and find that the coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times BM_{i,t-1}$  is significantly positive. This reconfirms Roychowdhury and Watts (2007). I also find that the coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times SIZE_{i,t}$  is significantly negative. This is in line with the findings in LaFond and Roychowdhury (2008) that large firms have less demand for conservatism than small firms because of rich information environment. However, different from Watts (2003) expectation, the coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times LEV_{i,t}$  is insignificant.

Finally, Model 4b extends Model 2b by controlling for  $BM_{i,t-1}$ ,  $LEV_{i,t}$  and  $SIZE_{i,t}$  and the results remain unchanged. The explanatory power increases from 45% in Model 3b to 49% in Model 4b. This suggests that  $LIMIT_{i,t-1}$  can increase the explanatory power of asymmetric timeliness. The results for the control variables  $CFO_{i,t} \times DCFO_{i,t} \times BM_{i,t-1}$ ,  $CFO_{i,t} \times DCFO_{i,t} \times LEV_{i,t}$  and  $CFO_{i,t} \times DCFO_{i,t} \times SIZE_{i,t}$ , in Model 4b are qualitatively similar after adding  $LIMIT_{i,t-1}$  in the asymmetric timeliness model, although their magnitudes slightly reduce. The coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times LIMIT_{i,t-1}$  remains significantly positive (0.034,  $t=2.07$ ). The results using Ball and Shivakumar (2005) reconfirms H1 that  $LIMIT_{i,t-1}$  is positively associated with conditional accounting conservatism.

**TABLE 5 Asymmetric Timeliness of Earnings and the Ratio between Investment Amount and the Approved Amount for Investments in China: Estimation of the Ball and Shivakumar (2005)**

	Model 1b:		Model 2b:		Model 3b:		Model 4b:	
	$ACCRUAL_{i,t}$		$ACCRUAL_{i,t}$		$ACCRUAL_{i,t}$		$ACCRUAL_{i,t}$	
	Coeff	<i>t</i> -value	Coeff	<i>t</i> -value	Coeff	<i>t</i> -value	Coeff	<i>t</i> -value
Intercept	0.037	(10.21)***	0.049	(6.79)***	0.037	(2.93)**	0.038	(2.70)**
$DCFO_{i,t}$	-0.040	(-3.77)***	-0.042	(-2.85)**	-0.002	(-0.07)	-0.004	(-0.16)
$CFO_{i,t}$	-0.867	(-35.72)***	-0.888	(-20.63)***	-0.579	(-6.64)***	-0.640	(-6.77)***
$CFO_{i,t} \times DCFO_{i,t}$	0.310	(2.90)**	0.018	(0.19)	-0.041	(-0.18)	-0.159	(-0.67)
$LIMIT_{i,t-1}$			-0.003	(-2.11)*			0.000	(0.10)
$DCFO_{i,t} \times LIMIT_{i,t-1}$			0.000	(0.04)			0.000	(0.10)
$CFO_{i,t} \times LIMIT_{i,t-1}$			0.005	(0.67)			0.010	(1.35)
$CFO_{i,t} \times DCFO_{i,t} \times LIMIT_{i,t-1}$			0.062	(3.57)***			0.034	(2.07)*
$BM_{i,t-1}$					-0.005	(-3.40)***	-0.005	(-3.43)***
$DCFO_{i,t} \times BM_{i,t-1}$					-0.007	(-2.67)**	-0.007	(-2.66)**
$CFO_{i,t} \times BM_{i,t-1}$					-0.033	(-3.79)***	-0.033	(-3.79)***
$CFO_{i,t} \times DCFO_{i,t} \times BM_{i,t-1}$					0.065	(3.20)**	0.059	(2.90)**
$LEV_{i,t}$					-0.007	(-4.86)***	-0.007	(-4.86)***
$DCFO_{i,t} \times LEV_{i,t}$					-0.001	(-0.47)	-0.001	(-0.46)
$CFO_{i,t} \times LEV_{i,t}$					-0.012	(-1.49)	-0.013	(-1.58)
$CFO_{i,t} \times DCFO_{i,t} \times LEV_{i,t}$					0.006	(0.31)	0.000	(0.02)
$SIZE_{i,t}$					0.004	(2.98)**	0.004	(2.89)**
$DCFO_{i,t} \times SIZE_{i,t}$					0.006	(1.97)*	0.006	(2.17)*
$CFO_{i,t} \times SIZE_{i,t}$					0.017	(2.23)*	0.020	(2.53)*
$CFO_{i,t} \times DCFO_{i,t} \times SIZE_{i,t}$					-0.098	(-5.27)***	-0.083	(-4.27)***
Observations	3,282		3,282		3,282		3,282	
Adjusted $R^2$	0.391		0.402		0.458		0.491	

1. Each of the regression coefficients reported above is the average of the coefficient estimates for the 10 years from 1998 to 2007.

2.  $CFO_{i,t}$  is operating cash flows from the cash flow statement at time  $t$ ;  $ACCRUAL_{i,t}$  is the difference between net income and operating cash flows for period  $t$ ;  $DCFO_{i,t}$  is a dummy variable that takes the value of one when  $CFO_{i,t}$  is negative, and zero otherwise;  $LIMIT_{i,t-1}$  is the percentage of the accumulated amount of money invested in China to the official limit at the beginning period of fiscal year  $t$ ;  $BM_{i,t-1}$  is the decile rank of the book-to-market ratio of firm  $i$  at the beginning of the period  $t$ ;  $LEV_{i,t}$  is the decile rank of the ratio of total liability to total assets at the period  $t$ ;  $SIZE_{i,t}$  is the decile rank of the natural logarithm of market value of total assets at time  $t$ .

3. Heteroskedasticity consistent  $t$ -statistics are in parentheses. \*\*\*, \*\*, \* indicate statistical significance at 1%, 5% and 10% level respectively for one-tailed  $t$ -tests of coefficients with predicted signs and two-tailed  $t$ -tests otherwise.

## 5.2 CORPORATE GOVERNANCE AND THE ASYMMETRIC TIMELINESS OF EARNINGS

In accounting literature, many studies have recently documented the positive relationship between stringent corporate governance provisions and a high demand for accounting conservatism. For example, Beekes et al. (2004) finds that the proportion of outside directors on the board of U.K. firms can increase asymmetric earnings timeliness. Firms with a higher proportion of outside directors recognize bad news in earnings on a timelier basis. Ahmed and Duellman (2007) also document for a U.S. sample that the percentage of inside directors is negatively related to conservatism and the percentage of outside directors' shareholders is positively related to conservatism. Garcia Lara, Garcia Osma and Penalva (2009) also find that firms with strong corporate governance will exhibit a high degree of accounting conservatism. These results are consistent with the argument of a positive relation between increased monitoring from corporate governance mechanism and conservatism.

Thus, it is also likely that the main results are driven by firms with better corporate governance. I include several corporate governance indicators as further control.

$$\begin{aligned}
NI_{i,t} = & \beta_0 + \beta_1 DR_{i,t} + \beta_2 R_{i,t} + \beta_3 R_{i,t} \times DR_{i,t} + \beta_4 LIMIT_{i,t-1} + \beta_5 DR_{i,t} \times LIMIT_{i,t-1} \\
& + \beta_6 R_{i,t} \times LIMIT_{i,t-1} + \beta_7 R_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1} + \beta_8 BM_{i,t-1} \\
& + \beta_9 DR_{i,t} \times BM_{i,t-1} + \beta_{10} R_{i,t} \times BM_{i,t-1} + \beta_{11} R_{i,t} \times DR_{i,t} \times BM_{i,t-1} \\
& + \beta_{12} LEV_{i,t} + \beta_{13} DR_{i,t} \times LEV_{i,t} + \beta_{14} R_{i,t} \times LEV_{i,t} + \beta_{15} R_{i,t} \times DR_{i,t} \times LEV_{i,t} \\
& + \beta_{16} SIZE_{i,t} + \beta_{17} DR_{i,t} \times SIZE_{i,t} + \beta_{18} R_{i,t} \times SIZE_{i,t} + \beta_{19} R_{i,t} \times DR_{i,t} \times SIZE_{i,t} \\
& + \sum_{j=1}^5 \beta_{20,j} corpor\_governance_{i,t,j}.
\end{aligned} \tag{5a}$$

$$\begin{aligned}
ACC_{i,t} = & \beta_0 + \beta_1 DCFO_{i,t} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t} \times DCFO_{i,t} + \beta_4 LIMIT_{i,t-1} \\
& + \beta_5 DCFO_{i,t} \times LIMIT_{i,t-1} + \beta_6 CFO_{i,t} \times LIMIT_{i,t-1} + \beta_7 CFO_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1} \\
& + \beta_8 BM_{i,t-1} + \beta_9 DCFO_{i,t} \times BM_{i,t-1} + \beta_{10} CFO_{i,t} \times BM_{i,t-1} \\
& + \beta_{11} CFO_{i,t} \times DCFO_{i,t} \times BM_{i,t-1} + \beta_{12} LEV_{i,t} + \beta_{13} DCFO_{i,t} \times LEV_{i,t} \\
& + \beta_{14} CFO_{i,t} \times LEV_{i,t} + \beta_{15} CFO_{i,t} \times DCFO_{i,t} \times LEV_{i,t} + \beta_{16} SIZE_{i,t} \\
& + \beta_{17} DCFO_{i,t} \times SIZE_{i,t} + \beta_{18} CFO_{i,t} \times SIZE_{i,t} + \beta_{19} CFO_{i,t} \times DCFO_{i,t} \times SIZE_{i,t} \\
& + \sum_{j=1}^5 \beta_{20,j} corpor\_governance_{i,t,j}.
\end{aligned} \tag{5b}$$

The first set of governance indicators captures the characteristic of the board of directors including (1) the non-duality of CEO ( $NDUAL_{i,t}$ ), where the dummy indicator equals one if CEO is not the president and zero otherwise, and (2) the proportion of independent directors ( $INDEP_{i,t}$ ).<sup>8</sup>

The second set of governance indicators include two variables: cross-holding structure ( $CROSS_{i,t}$ ), a dummy indicator taking the value 0 if companies have cross-holdings within the affiliated group and 1 otherwise, and pyramid structure ( $PYRAM_{i,t}$ ), a dummy indicator taking the value 0 if the ownership structure of the firm is part of the pyramid structure and 1 otherwise. According to some research studies (La Porta, Lopez-De-Silanes and Shleifer 1999; Claessens, Djankov and Lang 2000; Faccio and Lang 2002), pyramid structure and cross-shareholdings can help the owner maintain an effective control of the firm despite a low level of ownership. The potential issue of the divergence between ownership and control is that the owner may divert the firm's cash flow to its own wealth as the lower cash flow rights provide a lower degree of alignment of the interest between the owner and shareholders.<sup>9</sup> I also include institutional shareholdings ( $INST_{i,t}$ ) as an ownership variable as institutional investors also play a significant and effective role in contemporary corporate governance. As institutional investors typically control a larger block of votes, managers are more amenable to their demands (Shleifer and Vishny 1986).<sup>10</sup>

I include five governance measures ( $NDUAL_{i,t}$ ,  $INDEP_{i,t}$ ,  $INST_{i,t}$ ,  $CROSS_{i,t}$  and  $PYRAM_{i,t}$ ), and interact each governance measure with  $DR_{i,t}$ ,  $R_{i,t}$  and  $R_{i,t} \times DR_{i,t}$ . The coefficient on the governance variable itself measures the extent to which governance can increase/decrease net income. Table 6 reports the results. Column (1) and (2) report the results based on Basu (1997) and Ball and Shivakumar (2005), respectively.

<sup>8</sup> Empirical evidences show that there is a positive relation between monitoring strength of the board and accounting conservatism (Beekes et al. 2004; Ahmed and Duellman 2007; Garcia Lara et al. 2009). Directors are given the power to hire and fire managers, determine managers' compensation, and approve key decisions such as acceptance of major investment projects (Grinstein and Tolckowsky 2004). In order to effectively monitor and advise managers, directors (particularly outside directors) need verifiable information. The accounting and financial reporting system can provide verifiable information that is useful in monitoring and evaluating managers and their decisions and strategies.

<sup>9</sup> Evidence shows that greater deviation of cash flow and voting rights is negatively associated with firm performance (La Porta, Lopez-De-Silanes, Shleifer and Vishny 2002; Claessens, Djankov, Fan and Lang 2002) and that the credibility of the financial statements and the informativeness of earnings could be compromised (Fan and Wong 2002). Francis, LaFond, Olsson and Schipper (2005) also argues that firms with dual class stocks and a high divergence of cash flow voting rights result in lower quality of earnings.

<sup>10</sup> Almazan, Hartzell and Starks (2005) examine the role of institutional investors on monitoring and find that active institutions have a greater impact on the sensitivity of managers' pay to performance than passive institutions. Moreover, Beekes et al. (2004) argues that firms with greater institutional shareholdings and internal shareholdings by directors have better accounting quality.

**TABLE 6 The Impact of Corporate Governance on Asymmetric Timeliness of Earnings with Respect to Political Costs**

(1) Basu (1997): $NI_{i,t}$			(2) Ball and Shivakumar (2005): $ACCRUAL_{i,t}$		
	Coefficient	<i>t</i> -value		Coefficient	<i>t</i> -value
Intercept	0.044	(1.67)	Intercept	0.006	(0.27)
$DR_{i,t}$	-0.007	(-0.18)	$DCFO_{i,t}$	-0.038	(-0.82)
$R_{i,t}$	-0.052	(-1.15)	$CFO_{i,t}$	-0.844	(-5.70) ***
$R_t \times DR_{i,t}$	-0.111	(-0.97)	$CFO_{i,t} \times DCFO_{i,t}$	0.477	(1.35)
$LIMIT_{i,t-1}$	0.001	(0.76)	$LIMIT_{i,t-1}$	0.000	(0.18)
$DR_t \times LIMIT_{i,t-1}$	0.003	(1.21)	$DCFO_{i,t} \times LIMIT_{i,t-1}$	-0.000	(-0.02)
$R_t \times LIMIT_{i,t-1}$	-0.001	(-0.29)	$CFO_{i,t} \times LIMIT_{i,t-1}$	0.007	(0.95)
$R_t \times DR_t \times LIMIT_{i,t-1}$	0.015	(2.28) *	$CFO_{i,t} \times DCFO_{i,t} \times LIMIT_{i,t-1}$	0.031	(1.95) *
$BM_{i,t-1}$	-0.010	(-5.33) ***	$BM_{i,t-1}$	-0.003	(-2.12) *
$DR_t \times BM_{i,t-1}$	-0.005	(-1.73)	$DCFO_{i,t} \times BM_{i,t-1}$	-0.008	(-2.58) **
$R_t \times BM_{i,t-1}$	0.009	(3.21) **	$CFO_{i,t} \times BM_{i,t-1}$	-0.026	(-2.74) **
$R_t \times DR_t \times BM_{i,t-1}$	0.019	(2.32) *	$CFO_{i,t} \times DCFO_{i,t} \times BM_{i,t-1}$	0.023	(1.01)
$LEV_{i,t}$	-0.007	(-4.60) ***	$LEV_{i,t}$	-0.007	(-4.72) ***
$DR_t \times LEV_{i,t}$	-0.000	(-0.16)	$DCFO_{i,t} \times LEV_{i,t}$	-0.001	(-0.29)
$R_t \times LEV_{i,t}$	0.002	(0.83)	$CFO_{i,t} \times LEV_{i,t}$	-0.014	(-1.65)
$R_t \times DR_t \times LEV_{i,t}$	0.018	(2.70) **	$CFO_{i,t} \times DCFO_{i,t} \times LEV_{i,t}$	0.016	(0.73)
$SIZE_{i,t}$	0.009	(5.14) ***	$SIZE_{i,t}$	0.004	(2.44) *
$DR_t \times SIZE_{i,t}$	-0.005	(-1.89)	$DCFO_{i,t} \times SIZE_{i,t}$	0.006	(1.90)
$R_t \times SIZE_{i,t}$	0.003	(0.96)	$CFO_{i,t} \times SIZE_{i,t}$	0.033	(3.67) ***
$R_t \times DR_t \times SIZE_{i,t}$	-0.012	(-1.44)	$CFO_{i,t} \times DCFO_{i,t} \times SIZE_{i,t}$	-0.116	(-5.50) ***
$NDUAL_{i,t}$	0.023	(2.54) *	$NDUAL_{i,t}$	0.002	(0.27)
$DR_t \times NDUAL_{i,t}$	0.009	(0.62)	$DCFO_{i,t} \times NDUAL_{i,t}$	0.001	(0.08)
$R_t \times NDUAL_{i,t}$	-0.015	(-1.06)	$CFO_{i,t} \times NDUAL_{i,t}$	0.065	(1.36)
$R_t \times DR_t \times NDUAL_{i,t}$	0.066	(1.64)	$CFO_{i,t} \times DCFO_{i,t} \times NDUAL_{i,t}$	-0.099	(-0.91)
$INDEP_{i,t}$	0.061	(2.25) *	$INDEP_{i,t}$	0.046	(1.85)
$DR_t \times INDEP_{i,t}$	-0.021	(-0.46)	$DCFO_{i,t} \times INDEP_{i,t}$	-0.036	(-0.70)
$R_t \times INDEP_{i,t}$	0.042	(1.00)	$CFO_{i,t} \times INDEP_{i,t}$	0.150	(1.01)
$R_t \times DR_t \times INDEP_{i,t}$	0.039	(0.30)	$CFO_{i,t} \times DCFO_{i,t} \times INDEP_{i,t}$	1.296	(3.73) ***
$INST_{i,t}$	-0.017	(-0.74)	$INST_{i,t}$	0.029	(1.37)
$DR_{i,t} \times INST_{i,t}$	0.089	(2.37) *	$DCFO_{i,t} \times INST_{i,t}$	0.053	(1.22)
$R_t \times INST_{i,t}$	0.041	(1.11)	$CFO_{i,t} \times INST_{i,t}$	-0.091	(-0.72)
$R_t \times DR_t \times INST_{i,t}$	0.188	(1.95) *	$CFO_{i,t} \times DCFO_{i,t} \times INST_{i,t}$	0.119	(0.38)
$CROSS_{i,t}$	-0.000	(-0.02)	$CROSS_{i,t}$	0.000	(0.04)
$DR_t \times CROSS_{i,t}$	0.038	(1.96) *	$DCFO_{i,t} \times CROSS_{i,t}$	0.038	(1.72)

**TABLE 6 The Impact of Corporate Governance on Asymmetric Timeliness of Earnings with Respect to Political Costs (Continued)**

(3) Basu (1997): $NI_{i,t}$			(4) Ball and Shivakumar (2005): $ACCRUAL_{i,t}$		
	Coefficient	<i>t</i> -value		Coefficient	<i>t</i> -value
$R_t \times CROSS_{i,t}$	0.019	(1.08)	$CFO_{i,t} \times CROSS_{i,t}$	0.151	(2.46)*
$R_t \times DR_t \times CROSS_{i,t}$	0.058	(1.05)	$CFO_{i,t} \times DCFO_{i,t} \times CROSS_{i,t}$	-0.226	(-1.43)
$PYRAM_{i,t}$	0.003	(0.32)	$PYRAM_{i,t}$	0.011	(1.18)
$DR_t \times PYRAM_{i,t}$	-0.031	(-1.77)	$DCFO_{i,t} \times PYRAM_{i,t}$	-0.007	(-0.36)
$R_t \times PYRAM_{i,t}$	0.007	(0.38)	$CFO_{i,t} \times PYRAM_{i,t}$	-0.052	(-0.95)
$R_t \times DR_t \times PYRAM_{i,t}$	-0.025	(-0.49)	$CFO_{i,t} \times DCFO_{i,t} \times PYRAM_{i,t}$	0.047	(0.34)
	3,626			3,282	
Adjusted $R^2$	0.329		Adjusted $R^2$	0.503	

1. Each of the regression coefficients reported above is the average of the coefficient estimates for the 10 years from 1998 to 2007.

2.  $CFO_{i,t}$  is operating cash flows from the cash flow statement at time  $t$ ;  $ACCRUAL_{i,t}$  is the difference between net income and operating cash flows for period  $t$ ;  $DCFO_{i,t}$  is a dummy variable that takes the value of one when  $CFO_{i,t}$  is negative, and zero otherwise;  $LIMIT_{i,t}$  is the percentage of the accumulated amount of money invested in China to the official limit at the year  $t$ ;  $BM_{i,t-1}$  is the decile rank of the book-to-market ratio of firm  $i$  at the beginning of the period  $t$ ;  $LEV_{i,t}$  is the decile rank of the ratio of total liability to total assets at the period  $t$ ;  $SIZE_{i,t}$  is the decile rank of the natural logarithm of market value of total assets at time  $t$ ;  $NDUAL_{i,t}$  is a dummy indicator taking the value 1 if CEO is not the President and 0 otherwise at the period  $t$ ;  $INDEP_{i,t-1}$  is the proportion of independent directors on the board at the period  $t$ ;  $CROSS_{i,t-1}$  is a dummy indicator taking the value 0 if companies have cross-holdings within the affiliated group and 1 otherwise at the period  $t$ ;  $PYRAM_{i,t}$  is a dummy indicator taking the value 0 if the ownership structure of the firm is part of the pyramid structure and 1 otherwise at the period  $t$ ;  $INST_{i,t}$  is the shareholdings of institutional shareholders at the period  $t$ .

3. Heteroskedasticity consistent  $t$ -statistics are in parentheses. \*\*\*, \*\*, \* indicate statistical significance at 1%, 5%, and 10% level respectively for one-tailed  $t$ -tests of coefficients with predicted signs and two-tailed  $t$ -tests otherwise.

Column (1) of Table 6 shows that the coefficient on  $NDUAL_{i,t}$  (0.023) and  $INDEP_{i,t}$  (0.061) are significantly positive, but the coefficient on  $INST_{i,t}$  (-0.017),  $CROSS_{i,t}$  (0.000), and  $PYRAM_{i,t}$  (0.003) are insignificant. These suggest that  $NDUAL_{i,t}$  and  $INDEP_{i,t}$  are associated with higher net incomes, but the other governance variables cannot increase/decrease net income. Further, the measure of accounting conservatism,  $R_t \times DR_t \times NDUAL_{i,t}$ ,  $R_t \times DR_t \times INDEP_{i,t}$ ,  $R_t \times DR_t \times INST_{i,t}$ ,  $R_t \times DR_t \times CROSS_{i,t}$ , and  $R_t \times DR_t \times PYRAM_{i,t}$  indicates whether strong governance can impose stronger verification requirements for the recognition of economic gains than for the recognition of economic losses, generating earnings that reflect bad news in a timelier fashion than good news. The evidence only indicates the significance on the interaction term between  $INST$  and  $R_{i,t} \times DR_{i,t}$ . The coefficient on  $R_{i,t} \times DR_{i,t} \times INST_{i,t}$  is 0.188, with  $t$  value being 1.95. This suggests that institutional shareholders can provide a monitoring scheme to impose accounting conservatism. However, the governance results are not robust under Ball and Shivakumar (2005) model. Finally, the weak effects of governance in Table 6 may suggest avenues for future improvements of corporate governance in Taiwan.<sup>11</sup>

<sup>11</sup> For example, one reason that the effectiveness of independent directors cannot function as well as the independent directors in the USA lies on the quality of audit committee. Audit committee is a very new



Finally, in column (1), the results show that the coefficient on asymmetric timeliness of earnings with respect to  $LIMIT_{i,t-1}$  ( $R_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1}$ ) is 0.015 ( $t=2.28$ ) after controlling for  $BM_{i,t-1}$ ,  $LEV_{i,t}$  and  $SIZE_{i,t}$  and five governance measures. Column (2) shows that the coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times LIMIT_{i,t-1}$  is 0.031 ( $t=1.95$ ). However, different from Table 5, the coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times BM_{i,t-1}$  is insignificant, although the coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times SIZE_{i,t-1}$  remains significantly negative. With regard to governance variables, different from column (1) Table 6, I do not find that institutional shareholders are able to impose conservatism on companies. Instead, I find that the coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times INDEP_{i,t}$  is 1.296 ( $t=3.73$ ). This suggests that independent directors can also provide some governance power imposing asymmetric timeliness. For the other control variables, in line with Table 4, I find significance for the coefficient on  $R_t \times DR_t \times BM_{i,t-1}$  and  $R_t \times DR_t \times LEV_{i,t}$ . For Ball and Shivakumar (2005), in line with Table 5, the coefficient on  $CFO_{i,t} \times DCFO_{i,t} \times SIZE_{i,t}$  is significantly negative. These reconfirms that  $BM_{i,t-1}$ ,  $LEV_{i,t}$ , and  $SIZE_{i,t}$  can affect asymmetric timeliness of earnings.

To sum up, after controlling for corporate governance, Table 6 indicates that accounting is more conservative for firms with high exposures to political sensitivity.

### 5.3 “NEAR-LIMIT” FIRMS

In Table 4 and Table 5, I use  $LIMIT_{i,t-1}$  to capture a firm's exposure to political costs. While I find that asymmetric timeliness of earnings can increase with  $LIMIT_{i,t-1}$ , it is likely that the relationship between asymmetric timeliness and  $LIMIT_{i,t-1}$  might not be linear. To address this issue, I first group the sample into five groups (quintiles) by reference to  $LIMIT_{i,t-1}$ . I expect that asymmetric timeliness of earnings should be stronger for firms from the top quintile (the largest value of  $LIMIT_{i,t-1}$ ) than firms from the other quintiles or from the bottom quintile (the lowest value of  $LIMIT_{i,t-1}$ ). I construct  $QLIMIT1_{i,t-1}$  ( $QLIMIT2_{i,t-1}$ ) to compare asymmetric timeliness of earnings for the largest quintile group with the other groups (with the lowest quintile group). Specifically,  $QLIMIT1_{i,t-1}$  is an indicator equal to one if the observation is from the top quintile of  $LIMIT_{i,t-1}$  and zero if the observation lies in the other quintiles.<sup>12</sup>  $QLIMIT2_{i,t-1}$  is equal to one when the firm is on the top quintile of

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concept in Taiwan. From January 1, 2007 on, listed companies in Taiwan are allowed to replace the supervisors with the audit committee (Securities Exchange Act Article 14-4). However, during 2007-2009, I observe through the website of Market Observation Post System that less than 40 firms adopt the audit committee. Some may argue that before 2007, several firms also set up audit committee (AC) within the board of directors, but the specification of the AC is different from the requirement specified in Article 14-4 of Securities Exchange Act in that a firm did not need to abolish the supervisor scheme when they set up AC before 2007, but a firm can only choose either “supervisor scheme” or “AC scheme” pursuant to Article 14-4 of Securities Exchange Act. Thus, the government expresses the audit committee set up before 2007 or set up coexistent with the supervisor scheme as “quasi audit committee”. This example may demonstrate the discrepancy of current governance practice in Taiwan, by reference to US standards.

<sup>12</sup> The reason that I focus on Q5 (the largest quintile value of  $LIMIT_{i,t-1}$ ) is because the political costs should be stronger for firms from the top quintile (the largest value of  $LIMIT_{i,t-1}$ ) than firms from the other quintiles or from the bottom quintile (the lowest value of  $LIMIT_{i,t-1}$ ). Chen and Yuan (2004) find that, in

$LIMIT_{i,t-1}$  and equal to zero if it is on the lowest quintile of  $LIMIT_{i,t-1}$ . I expect the estimated coefficient on  $QLIMIT_{i,t-1}$  to be positive. For the measure  $QLIMIT2_{i,t-1}$ , I focus on the lowest and highest quintiles of  $LIMIT_{i,t-1}$  because the difference in  $LIMIT_{i,t-1}$  should be the most pronounced for these two quintiles and may enhance the statistical power of our results.

Table 7 reports the results. Column (1) present results for the measure  $QLIMIT1_{i,t-1}$  and column (2) reports the results for the measure  $QLIMIT2_{i,t-1}$ . In column (1), the results show that the coefficient on  $R_{it} \times DR_{it} \times LIMIT_{i,t-1}$  is significantly positive, in line with Table 4. The results for  $R_t \times DR_t \times BM_{i,t-1}$ ,  $R_t \times DR_t \times LEV_{i,t}$  and  $R_t \times DR_t \times SIZE_{i,t}$  are also in line with Table 4. In column (2), when comparing the highest and lowest quintile, I also find that the coefficient on  $R_{i,t} \times DR_{i,t} \times LIMIT_{i,t-1}$  is significantly positive. While Table 4 and Table 5 find that asymmetric timeliness of earnings can increase with  $LIMIT1_{i,t-1}$ , Table 7 shows that the relationship is non-linear. The asymmetric timeliness of earnings is the strongest in firms with the highest value of  $LIMIT1_{i,t-1}$ , namely firms whose accumulative investments in China have approached the authorized limits. Grouping the sample into four groups (quartiles), the untabulated results generate the same patterns and do not affect the inferences.

Finally, I have also re-examined Table 4 and Table 5 by (1) removing the bottom quintile group from the whole sample; (2) focusing only on the top quintile group; (3) focusing on the top two quintile groups. The untabulated results show that the effects are the same.

#### 5.4 ALTERNATIVE EXPLANATIONS

Results in Table 4 and Table 5 show that accounting conservatism or asymmetric timeliness of earnings can increase as a firm's investments in China reaches its authorized limits. However, another alternative is that firms with higher investments in China tend to incur more losses from the projects because investments in China can be loss-making. Under this situation, as the amount committed to projects in China increases, the accumulated losses from investments in China will increase. It is also likely that firms with a high ratio of  $LIMIT_{i,t-1}$  have more "losses" from investments in China than firms with a

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China, the political costs are the highest for firms who report an ROE just above 10% because the minimum of a 10% ROE is a criterion to apply for permission to issue additional shares to existing shareholders. The Chinese regulators seem to increase their scrutiny on firms whose ROE reaches the 10% hurdle. Further, regulators in Taiwan can request the highest asymmetric timeliness of earnings for the firms whose investments approach the authorized limits. The authorized limit is a dividing line between meeting and violating the regulation, which would push the regulators to exhibit a "threshold mentality" (DeGeorge, Patel and Zeckhauser 1999). The mean (median) value of  $LIMIT_{i,t-1}$  for the group Q5 is 0.912 (0.956). Thus, firms who lie in the Q5 are more likely to be the initial screen for the SEC. While asymmetric timeliness of earnings should increase with  $LIMIT_{i,t-1}$  proportionately or nonlinearly to reflect the increasing level of the regulatory scrutiny, asymmetric timeliness of earnings in Q5 should be the largest, relative to the other groups.

low ratio of  $LIMIT_{i,t-1}$  because of value-destroying nature to invest in China. For example, firms with a high ratio of  $LIMIT_{i,t-1}$  may incur a substantial amount of losses from the investments in China such that the retained earnings for the investments in China are insufficient to cover any operating needs.<sup>13</sup> To address this concern that bad news cluster more frequently in firms with high ratio of  $LIMIT_{i,t-1}$  than the other firms, I employ Model 6<sup>14</sup>:

$$NI_{i,t+1} = \beta_0 + \beta_1 NI_{i,t} \times LIMIT_{i,t-1} + \varepsilon_{i,t}. \quad (6)$$

I expect  $\beta_1$  to lie between 0 and 1 and  $\beta_2$  to be zero to rule out this possibility. Specifically, if it is bad news (as proxied by returns) clustering in firms with high  $LIMIT_{i,t-1}$  rather than asymmetric timeliness of earnings that explains the results in Table 4 and Table 5, it is highly likely that the persistence of earnings does not vary across firms with different ratios of  $LIMIT_{i,t-1}$ . Table 8 shows the result. Column (1) shows that the coefficient on  $NI_{i,t}$  is 0.530, significantly positive, and the coefficient on  $NI_{i,t} \times LIMIT_{i,t}$  is significantly positive. I attain the same results in column (2) when I control for  $BM_{i,t}$ ,  $LEV_{i,t}$  and  $SIZE_{i,t}$ . Thus, the results reject  $\beta_2$  to be zero and reconfirm H1.

Finally, to shed further lights on the “accounting conservatism” explanation, following Basu (1997), I employ Model 7a and Model 7b.

$$\Delta NI_{i,t} = \beta_1 + \beta_2 D\Delta NI_{i,t-1} + \beta_3 D\Delta NI_{i,t-1} + \beta_4 D\Delta NI_{i,t-1} \times D\Delta NI_{i,t-1} + \varepsilon_{5,i,t}. \quad (7a)$$

$$\begin{aligned} \Delta NI_{i,t} = & \beta_1 + \beta_2 D\Delta NI_{i,t-1} + \beta_3 \Delta NI_{i,t-1} + \beta_4 \Delta NI_{i,t-1} \times D\Delta NI_{i,t-1} \\ & + \beta_5 LIMIT_{i,t-1} + \beta_6 D\Delta NI_{i,t-1} \times LIMIT_{i,t-1} \\ & + \beta_7 \Delta NI_{i,t-1} \times LIMIT_{i,t-1} + \beta_8 \Delta NI_{i,t-1} \times D\Delta NI_{i,t-1} \times LIMIT_{i,t-1} \\ & + \varepsilon_{i,t}, \end{aligned} \quad (7b)$$

where:  $\Delta NI_{i,t}$  is the change in  $NI_{i,t}$  of firm  $i$  from the accounting period ended at balance sheet date ( $t-1$ ) to the period ended at balance-sheet date  $t$ , scaled by total assets at balance sheet date ( $t-1$ );  $D\Delta NI_{i,t-1}$  is a dummy variable that takes the value of one where  $\Delta NI_{i,t}$  is negative and zero otherwise; and other notation is as previously defined. Under conditional conservatism, the accounting recognition of bad news, giving rise to negative earnings changes, is more timely than the accounting recognition of good news, giving rise to positive earnings changes, and it is therefore expected that the next-period reversal of negative earnings changes will be greater than the next-period reversal of positive earnings changes.  $\beta_4$  indicates whether earnings-change reversal is greater for negative earnings changes than for positive earnings changes:  $\beta_4 < 0$  implies more timely recognition of

<sup>13</sup> I also use total assets and total investments as the scalar, and the results are the same.

<sup>14</sup> I am grateful for an anonymous referee for the suggestion.

bad news than of good news, consistent with conditional accounting conservatism. The addition of  $LIMIT_{i,t-1}$  interaction terms in model (7b) enables me to observe the effect of  $LIMIT_{i,t-1}$  on conditional conservatism as measured by reference to earnings-change reversal.  $\beta_8$  indicates whether conditional conservatism measured by reference to earnings-change reversal is associated with  $LIMIT_{i,t-1}$ :  $\beta_8 < 0$  implies that it is more pronounced for firms whose investments in China increase. Untabulated results show that  $\beta_8$  is significantly negative, reconfirming the conservatism explanation.

### 5.5 INDUSTRY EFFECTS

One concern of the study is that the results are driven by some industries, as some industries are exposed to more legal restrictions than other industries. To address the possibility, I employ fixed effect model to re-estimate regression models 2-5 by controlling for industries. This can reduce potential omitted variable bias by controlling for industry differences that are time-invariant. I also separately re-estimate regression models 2-5 for high-tech industries and non-high-tech industries. The results all suggest that the positive association between  $LIMIT_{i,t-1}$  and conservatism is robust with industry effects. Thus, the industry factor does not confound the results.

### 5.6 EVIDENCE FOR RECENT PERIODS

It is likely that the political costs for firms can reduce after 2008 as the Policy articulated by the current president, Ma Ying-Jeou, is aimed at strengthening ties with China. Even so, restrictions on local firms investing in China remain in place; only the investment limits were relaxed from 30-40% to 50-60% of the firm's net worth from 2009. I have re-examined Table 4 and Table 5 by extending the sample period to 2009, and the results are qualitatively similar.<sup>15</sup> While the inference of my results are not different using the sample period 2002-2008 and the period 2002-2009, untabulated results show that the positive association between conservatism and  $LIMIT_{i,t-1}$  attenuates in 2009. This seems to suggest that the regulation costs for firms investing in China can decrease after 2008, which is consistent with the government's support for investments in China. As it takes time for any policy to be reflected in accounting or economic consequences, future researchers can shed further lights on the findings.

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<sup>15</sup> I cannot extend the sample period to 2010 due to the availability of the data in 2010.

**TABLE 7 Asymmetric Timeliness of Earnings and the Ratio between Investment Amount and the Approved Amount for Investments in China: Estimation of the Basu (1997): “Near-Limit Firms”**

	(1)The largest quintile vs. the other groups		(2)The largest quintile vs. the smallest quintile	
	Coeff	<i>t</i> -value	coeff	<i>t</i> -value
Intercept	0.084	(5.64) ***	0.050	(1.62)
$DR_{i,t}$	0.001	(0.07)	0.033	(1.07)
$R_{i,t}$	0.016	(1.05)	0.015	(0.51)
$R_t \times DR_{i,t}$	0.015	(0.34)	0.081	(0.90)
$QLIMIT_{i,t-1}$	-0.020	(-1.91)	-0.026	(-1.32)
$DR_t \times QLIMIT_{i,t-1}$	0.031	(1.80)	0.060	(1.90)
$R_t \times QLIMIT_{i,t-1}$	0.016	(1.03)	0.005	(0.14)
$R_t \times DR_t \times QLIMIT_{i,t-1}$	0.101	(2.13) *	0.215	(2.43) *
$BM_{i,t-1}$	-0.014	(-9.57) ***	-0.016	(-5.16) ***
$DR_t \times BM_{i,t-1}$	-0.004	(-1.53)	-0.007	(-1.30)
$R_t \times BM_{i,t-1}$	0.006	(2.62) **	0.010	(1.93)
$R_t \times DR_t \times BM_{i,t-1}$	0.019	(2.84) **	0.002	(0.11)
$LEV_{i,t}$	-0.006	(-3.98) ***	-0.003	(-0.94)
$DR_t \times LEV_{i,t}$	0.000	(0.01)	-0.008	(-1.73)
$R_t \times LEV_{i,t}$	0.001	(0.48)	-0.004	(-0.84)
$R_t \times DR_t \times LEV_{i,t}$	0.020	(3.00) **	0.013	(0.92)
$SIZE_{i,t}$	0.007	(4.74) ***	0.010	(3.17) **
$DR_t \times SIZE_{i,t}$	-0.002	(-0.95)	-0.001	(-0.11)
$R_t \times SIZE_{i,t}$	0.002	(0.87)	0.005	(0.81)
$R_t \times DR_t \times SIZE_{i,t}$	-0.009	(-1.22)	-0.010	(-0.70)
Control for governance	Yes		Yes	
Observations	3,626		1,450	
Adjusted $R^2$	0.322		0.321	

1. Each of the regression coefficients reported above is the average of the coefficient estimates for the 10 years from 1998 to 2007.
2.  $R_{it}$  is the annual return over the 12-month interval from the fifth month of fiscal year  $t$  till the fourth month of fiscal year  $(t+1)$ ;  $NI_{i,t}$  is consolidated net income scaled by beginning-of-period market value of equity;  $CFO_{i,t}$  is operating cash flows from the cash flow statement at time  $t$ ;  $BM_{i,t-1}$  is the decile rank of the book-to-market ratio of firm  $i$  at the beginning of the period  $t$ ;  $LEV_{i,t}$  is the decile rank of the ratio of total liability to total assets at the period;  $SIZE_{i,t}$  is the decile rank of the natural logarithm of market value of total assets at time  $t$ .
3. Heteroskedasticity consistent  $t$ -statistics are in parentheses. \*\*\*, \*\*, \* indicate statistical significance at 1%, 5%, and 10% level respectively for one-tailed  $t$ -tests of coefficients with predicted signs and two-tailed  $t$ -tests otherwise.

**TABLE 8 Persistence of Earnings with respect to LIMIT**

	(1)		(2)	
	Coeff	t-value	Coeff	t-value
Intercept	0.012	(4.78) <sup>***</sup>	-0.062	(-2.11) <sup>*</sup>
$NI_{it}$	0.530	(16.09) <sup>***</sup>	0.466	(13.74) <sup>***</sup>
$NI_t \times LIMIT_{it-1}$	0.009	(2.61) <sup>*</sup>	0.011	(1.98) <sup>*</sup>
$SIZE_{it}$			0.007	(3.74) <sup>***</sup>
$LEV_{it}$			-0.003	(-3.11) <sup>**</sup>
$BM_{it}$			-0.003	(-3.75) <sup>***</sup>
Control for governance	No		No	
Observations	2,737		2,737	
Adjusted $R^2$	0.296		0.308	

1. Each of the regression coefficients reported above is the average of the coefficient estimates for the 10 years from 1998 to 2007.
2.  $R_{i,t}$  is the annual return over the 12-month interval from the fifth month of fiscal year  $t$  till the fourth month of fiscal year  $(t+1)$ ;  $NI_{i,t}$  is consolidated net income scaled by beginning-of-period market value of equity;  $CFO_{i,t}$  is operating cash flows from the cash flow statement at time  $t$ ;  $LIMIT_{i,t}$  is the percentage of the accumulated amount of money invested in China to the official limit at the year  $t$ ;  $BM_{i,t}$  is the decile rank of the book-to-market ratio of firm  $i$  at the period  $t$ ;  $LEV_{i,t}$  is the decile rank of the ratio of total liability to total assets at the period;  $SIZE_{i,t}$  is the decile rank of the natural logarithm of market value of total assets at time  $t$ .
3. Heteroskedasticity consistent t-statistics are in parentheses. <sup>\*\*\*</sup>, <sup>\*\*</sup>, <sup>\*</sup> indicate statistical significance at 1%, 5%, and 10% level respectively for one-tailed t-tests of coefficients with predicted signs and two-tailed t-tests otherwise.

## 6. CONCLUSIONS

The study investigates whether asymmetric timeliness of earnings will increase with the amount of investments in China. Following Basu (1997), accounting conservatism would impose stronger verification requirements for the recognition of economic gains than for the recognition of economic losses, leading to accounting earnings that reflect bad news quicker than good news. Bushman and Piotroski (2006) test and find the influence of political institutions on conservative accounting. As their cross-country analyses measure the political economy with country-specific institutional factors, political cost is only one of those country-specific factors (e.g., legal, litigation and capital market demand) that can capture the incentives for financial reporting. To shed further lights on this, I take advantage of a unique setting in Taiwan where the government in Taiwan imposes a political restriction on total investments in China. Political tension between Taiwan and China has existed for more than half a century over the issue of Taiwan's sovereign status. The government in Taiwan has attempted to brake the rapid expansion of commercial ties

by placing some restrictions on investments in China. The government restricts cumulative investments in China to 20-40 % of a firm's shareholder equity, depending on the firm's size.

I apply an augmented Basu regression to investigate the relation between earnings conservatism and political costs. I measure the political sensitivity for each firm with the ratio of cumulative investments in China so far to the authorized upper limit to invest in China. In line with my prediction, I find that asymmetric timeliness of earnings is more associated with firms that heavily invest in China. To ensure the robustness of my results, I control for factors such as book-to-market ratio and leverage as these factors are associated with asymmetric timeliness, corporate governance such as managerial independence, independent director ownership, ownership structure and institutional ownership and use different measures of asymmetric timeliness of earnings. The results are generally consistent with the political explanations for accounting conservatism. This study contributes to literature by explicitly considering the political environment and avoiding the firm size proxy common in previous research. Holding institutional factors constant, the investigation of a single country can complement other studies that use country institution to proxy for political environment (Bushman and Piotroski 2006).

## APPENDIX

### The Cross-strait Proactive Liberalization with Effective Management Policy (兩岸經貿「積極管理、有效開放」配套機制)

#### ◎經濟類

涉及議題	強化管理措施
一、大陸投資有效管理	
(一) 加強查處違法赴大陸投資案件	1. 加強查處違法赴大陸投資案之執行機制。 針對重大投資或高科技外移大陸違法案件進行調查及處分。 2. 提高檢舉獎金，鼓勵檢舉人檢舉違規者。 94年9月12日修正發布「經濟部鼓勵檢舉違法赴大陸地區投資或技術合作案件給獎實施要點」，大幅提高檢舉獎金(最高金額禁止類案件新台幣200萬元，一般類及技術合作類案件新台幣60萬元)。
(二) 改革大陸投資審查制度	強化重大投資案件之審查及事後管理機制 (1) 對超過一定金額以上或與敏感科技有關產業之重大投資案件，除依專案審查程序辦理外，應先進行政策面審查，由政府有關部門邀請企業負責人及經理人，就企業財務計畫、技術移轉、輸出設備、在台相對投資等要項，進行協調，在確定業者具體承諾，並由業者出具同意相關主管機關必要時進行大陸投資事項實地查核之承諾書後，再提送經濟部投審會開會審查。

## The Cross-strait Proactive Liberalization with Effective Management Policy (兩岸經貿「積極管理、有效開放」配套機制) (Continued)

### ◎經濟類

涉及議題	強化管理措施
(二) 改革大陸投資審查制度	(2) 業者經核准進行大陸投資後，主管機關應分別針對母公司於國內持續投資與技術升級情況、廠商在大陸營運及增資與擴廠情形，持續追蹤管理，必要時赴大陸實地查核，以落實有效管理。
(三) 強化配套管理機制	<p><b>1. 加強公司重大財務及對大陸投資資訊揭露</b></p> <p>(1) 公開發行公司之董事（或經理人）從事大陸投資，如有涉及競業行為等重大影響公司股東權益之事項時，依規定應取得股東會（或董事會）之許可；許可時並應依規定於公開資訊網站公告申報。</p> <p>(2) 將公開發行公司董事、經理人及負責人赴大陸從事近似行業之投資資訊列入公開發行公司重大資訊揭露範圍。</p> <p><b>2. 建置企業大陸投資資料庫</b></p> <p>陸委會會同經濟部、金管會及相關機關建制國內企業大陸投資資料庫，彙整大陸投資相關事項完整資訊，以充分掌握企業大陸投資動態。</p> <p><b>3. 檢討上市櫃公司與其負責人或大股東從事關係人交易之規範</b></p> <p>證交所及櫃買中心依規定對上市、櫃公司之財務業務進行平時及例外管理時，將針對該關係人交易有無異常予以查核。</p> <p><b>4. 針對大陸投資案件數多或金額龐大之公司，加強其大陸投資案之事前審查，以避免化整為零或因群聚投資造成產業核心競爭力的減損。</b></p> <p>視個案需要依「在大陸地區從事投資或技術合作審查原則」提報投審會審查，並修正現行之上述辦法，將之納入專案審查類加強審查。</p> <p><b>5. 追蹤在投資大陸後國內母公司之營運情形，對於公司財務狀況惡化者，應加強其大陸投資事業財報及實地查核；有掏空公司疑慮者，予以專案列管。</b></p> <p>(1) 經審查其財務報表中大陸投資涉有異常不法情事，證交所及買賣中心將移轉司法機關偵辦。</p> <p>上市櫃公司如發生財務業務或其他重大事件，致對公司經營成影響時，證交所及櫃買中心依規定對其進行例外管理與查核。</p> <p>(2) 上市櫃公司如發生財務業務或其他重大事件，致對公司經營成影響時，證交所及櫃買中心依規定對其進行例外管理與查核。</p>



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