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Where is foreign institutional investors' efficacy? A transparency & disclosure perspective
從透明揭露觀點找尋境外機構投資者的功效

Chin-Jung Luan
Department of International Business, National Dong Hwa University
Chengli Tien[1]
Department of East Asian Studies, National Taiwan Normal University

Abstract: This study examines the efficacy of foreign institutional investors (FINIs) in affecting information disclosure for a better corporate governance mechanism from multifaceted perspectives. Data for the current study were gathered from the Securities and Futures Institute of Taiwan and Taiwan Economic Journal databases. The study collected data on firms listed on the Taiwan Stock Exchange. The sample is a panel of 840 unique companies across a six-year span from 2005 to 2010. The first conclusion reached is that FINIs fail to play a powerful role in directly improving a firm's information transparency and disclosure (T&D). Second, FINIs do not have significant efficacy in moderating the relationship between firm performance and information T&D. This study provides empirical evidence to dissolve the myth of FINIs' efficacy from the viewpoints of the agency theory and international investment, thus suggesting new avenues of research for the literature on the causality of firm performance, FINIs and governance practices, and the perspective of agency problems. This study offers investees evidence in terms of strategies to attract investors for better governance.

Keywords: Corporate governance, information transparency and disclosure,

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[1] Corresponding author: Chengli Tien, Department of East Asian Studies, National Taiwan Normal University, No. 162, Sec. 1, Heping E. Rd., Taipei 106, Taiwan, E-mail: cltien@ntnu.edu.tw.
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foreign institutional investors, agency theory, International investment.

1. Introduction

Discussions on the impact of foreign institutional investors (FINIs) can be provocative, but are generally quite diverse. Among these discussions, the relationship between FINIs' investments and emerging market economies has received growing attention. Emerging markets exhibit less transparency, which may decrease the level of confidence that FINIs hold for these markets (Lin and Ma, 2014). Thus, post-liberalized capital markets with increased transparency can attract FINIs and foreign investment inflows, which should contribute to the growth of these markets and a lower cost of capital (Bekaert and Harvey, 2000) - that is, FINIs' inflows can positively impact an emerging market economy.

Jain, Meena, and Mathur (2013) indicated that FINIs' inflows can enhance equity capital flows, promote financial innovation and risk management instruments, increase capital market efficiency, and improve a country's corporate governance system. Suzuki, Tanimoto, and Kokko (2010) also supported the claim that FINIs can be an impetus to a sound corporate governance mechanism, as FINIs are likely to be long-term oriented, because they do not aim at "quick" profits, but rather long-term growth prospects for their target firms. However, other FINIs can be speculative, which may increase short-term volatility and market instability, resulting in economic and financial repercussions due to threats from uncertainties involving exchange rates and flows of "hot money" (Guo and Huang, 2010; Jain *et al*., 2013; Karolyi, 2002). Hence, FINIs may play a two-edged role in the economic development of emerging markets and the improvement of corporate governance systems. Furthermore, FINIs can be strategic or typical. Strategic FINIs, defined as those that take part in firms' strategic decisions, may enjoy relatively higher information advantages than other investors and thus tend to retain some accessible information (Lakhal, 2005). In contrast, typical FINIs hold a short-term investment horizon (Jain *et al*., 2013) and can easily withdraw their investments from capital markets when needed.

Not only can FINIs play different roles in impacting the capital markets of emerging economies, but their ownership of firms in emerging economies can

also bring resources into those firms and thus influence their operations and performance. Prior studies have focused on the relationship between FINIs' investments and the associated post-investment performance of the invested firms. Huang and Shiu (2009) found that foreign institutional equity ownership is positively associated with improvement in firm performance. Prasanna (2008) also stated that foreign institutional holdings in a firm in turn influence firm performance, because "growth is the only inclination for their investment" (p. 41). However, fewer studies have focused on the impacts of FINIs on firms' corporate governance practices.

In terms of the impacts of FINIs on firms' corporate governance practices, foreign capital infused into the stock markets of emerging economies may further result in diverse impacts on the invested firms' governance practices. Some have argued that FINIs are more indispensable in most emerging markets than in developed countries and can further improve corporate governance mechanisms and practices (Aksu and Kosedag, 2006; Hsu, 2013). However, others have stated that FINIs may deteriorate a country's stock market stability due to manipulation by "hot money" from abroad (Jain *et al.*, 2013), thus providing little stimulus to improving the invested firms' governance practices. Although FINIs have played a critical role in the economic development of emerging market countries (Bekaert and Harvey, 2000; Kim and Singal, 2000), their actual impact on the invested firms' corporate governance practices is debatable.

Corporate governance mechanisms are practiced over a wide spectrum. Regulatory requirements on firms' information disclosures (e.g., independent outside director appointment, board remuneration, etc.) are among these practices that can improve corporate governance mechanisms, whereas professional analytical reports convey information about what is going on inside the firms (Francis and Soffer, 1997). FINIs can also possess resources to conduct technical and fundamental analyses on their long-term investment targets (Huang and Shiu, 2009) in order to manage risk and to mitigate the impacts of information asymmetry, which concerns an imbalance of information between inside management and outside investors (Chen, Lu, and Tsay, 2012). Even though foreign investors can use their previous investment experience and make efforts to collect information on firms in which they invest, they remain at a

disadvantaged or vulnerable position when seeking information to evaluate the targets, because of the agency problems (Berglund and Westerholm, 2010).

Agency problems result from the separation of ownership and control (Huang *et al*., 2014; Jensen and Meckling, 1976). Thus, consolidating corporate governance is an efficient means to mitigate such problems (Judge, Naoumova, and Koutzevol, 2003). However, sound governance that can mitigate agency problems requires a high degree of transparency and quality of disclosure (Htay, 2012), while analysts rely on information about corporate governance practices (e.g., the status and dynamics of the board structure and shares held by board members) to evaluate the reliability of a firm's disclosure of its performance (Bushman, Piotroski, and Smith, 2004). Thus, information disclosure plays a critical role in a sound governance mechanism, and so this study focuses on a firm's information transparency and disclosure (T&D) in the investigation of corporate governance mechanisms herein.

Prior literature shows that a firm's decision to disclose may involve controversies, and that firms may have different motivations behind their T&D practices (Scott, 1994). Firms may disclose more information in order to decrease their cost of capital and increase stock liquidity (Botosan, 1997; Miller, 2002; Richardson and Welker, 2001) or to protect themselves from litigation (Elliott and Jacobson, 1994). However, firms disclosing more information may expose their weaknesses (e.g., poor financial track records) or do so at the possible expense of being imitated by competitors (Aggarwal and Jorion, 2012). Thus, T&D can be a double-edged sword to a firm, although prior studies have proved that corporate governance practices are positively associated with firm performance (Lowenstein, 1996; Mitton, 2002).

The causality between a firm's T&D and its performance nonetheless remains debatable, because reverse causality may exist, although it has been less discussed. In other words, prior firm performance may affect a firm's decision to disclose. As noted above, FINIs may impact the invested firms' T&D practices. Therefore, the present study highlights the role of FINIs to differently delineate the causality and the relationship between firm performance and an invested firm's information T&D practices - that is, this study examines the role of FINIs by looking at their direct impact and interacting impact on a firm's T&D.

This study makes three original contributions to the literature and to

business practitioners. First, this study bridges the perspectives of the agency theory and international investment to discover the efficacy of FINIs by examining their direct impact on information T&D practices. Second, by further examining the moderating role of FINIs, we extend our knowledge concerning the efficacy of FINIs from the moderating perspectives to examine FINIs' impact on the relationship between firm performance and firms' information T&D practices with evidence that extends our understanding of the issue. Third, this study looks at the impact of foreign investment on the invested firms' information T&D practices, as well as the moderating impact of foreign investment on the relationship between firm performance and the invested firms' information T&D practices through the lenses of the size and year of foreign investment. These findings enhance the validity of the evidence presented. This study further clarifies the efficacy of FINIs in emerging economies with empirical evidence to determine if and how FINIs can be an impetus toward improved corporate governance. Thus, we provide academicians, practitioners, and policy makers with findings regarding the efficacy of FINIs and factors that encourage sound governance.

This study contains six sections. The first section addresses the purpose of the study. The second section presents the literature review and hypotheses' development. The third section addresses the method used to analyze the data from sampled firms in Taiwan. The fourth section explains the empirical results. The fifth section presents a conclusion of the findings from the empirical tests, noting the theoretical and managerial implications. The final section addresses the limitations of the present research and provides recommendations for future research.

2. Literature review and hypotheses' development

FINIs may play different roles as strategic FINIs or typical FINIs. Strategic FINIs can behave as a principal, emphasizing long-term investment and involvement in management decisions, while typical FINIs can act as a principal, stressing short-term returns on the investment. Therefore, the impacts of FINIs can be investigated in detail by incorporating two streams of theoretical perspectives: the agency theory and international investment. From these

perspectives we can depict the selection process of FINIs concerning invested targets and whether the inflows of investment can help a firm establish or maintain a sound governance system.

From the perspective of the agency theory, institutional investors have been considered an important mechanism in improving corporate governance practices. Through participation in the decision-making processes of the invested firms, FINIs can obtain more information about the firms and thus prevent themselves from having an information asymmetry and being at a disadvantage. From the international investment literature, information asymmetry is also critical for FINIs investing in foreign firms due to issues such as cultural distance (Roth and O'Donnell, 1996; Zou and Xiao, 2006). Thus, FINIs have to attenuate the information disadvantages and asymmetry to reduce risks when investing internationally.

The fact that FINIs favor some firms for investment over others implies that even with their disadvantaged status, FINIs can use available indicators to select firms in which to invest. Long-term profitability is therefore associated with higher T&D, and firm performance can be employed as an effective indicator to reduce FINIs' information asymmetry for better governance. In other words, based on the agency theory and international investment literature, FINIs' investments should be associated with firm performance and a firm's T&D practices. Thus, we elaborate on the relationships among firm performance, FINIs, and T&D practices in the following sections.

2.1 Foreign institutional investors and information transparency and disclosure

The role of foreign investment has received increasing attention in the fields of strategy, international business, and economics (Zhang *et al*., 2010). Referring to the agency theory, FINIs, as principals and outside capital providers, can exert the dual role of monitoring and resource allocation - that is, FINIs can be strategic or typical. Strategic FINIs play an "active" role and can be a major source of capital and knowledge. These investors not only provide capital resources, but also enhance board structures and ownership structures (Black, 1998). In other words, foreign investors can provide resources, contribute knowledge, and strengthen governance (Ho, Wu, and Xu, 2011). Hence, the

positive spillover effects (i.e., positive externalities) from foreign strategic investors to emerging market firms should be evident. As strategic investors, the resources are carefully monitored and target firms' operations and processes are scrutinized under strict supervision. Abundant resources are often infused and are accompanied by controls and monitored by strategic FINIs. Strategic FINIs can play an important role in monitoring the invested firms. Consequently, these firms' T&D will be improved - that is, strategic FINIs play a positive role in governing information T&D.

In contrast to strategic investors, typical investors are non-strategic investors who are not interested in intervening in the operations and the management of the invested firms. Most investors are typical investors who emphasize returns, because their investments are basically considered short term in nature (Jain *et al*., 2013). However, from the perspective of institutional investors in emerging economies, FINIs not only play a critical role in the economic development of these emerging economies (Bekaert and Harvey, 2000; Kim and Singal, 2000), but also take part in the corporate governance of firms in these emerging economies. In other words, regardless of strategic or typical intentions, FINIs' investments may change the ownership structure and board structure of a firm. Thus, FINIs should play an important role in these invested firms in emerging economies and encourage more information T&D. Hence, we predict that FINIs can positively affect the information T&D practices of the invested firms.

A firm may not necessarily volunteer to disclose information that is not required by law, but FINIs should encourage disclosures—mandatory and voluntary—for better transparency. For the present study, we propose analyzing a firm's information T&D practices from two perspectives (overall and voluntary information T&D practices) to be able to analyze these T&D practices more comprehensively. The overall information T&D practices include mandatory and voluntary disclosures, whereas voluntary disclosure only addresses voluntary practices. Hence, the first set of hypotheses is as follows.

H1: Investment in firms by FINIs can positively affect the invested firms' information T&D practices.

H1a: Investment in firms by FINIs can positively affect the invested firms' overall information T&D practices.

H1b: Investment in firms by FINIs can positively affect the invested firms' voluntary information T&D practices.

2.2 The moderating effects of foreign institutional investors on the relationship between firm performance and information T&D

2.2.1 Firm performance and information T&D

There has been much provocative discussion of the association between firm performance and information T&D in the field of corporate governance (Black, Jang, and Kim, 2006; Ho and Wong, 2001; Mallin, 2002), but most attention has been paid to the causality when governance and disclosure influence firm performance (Diamond and Verrecchia, 1991; Healy and Palepu, 1993; Sheu, Chung, and Liu, 2010). Research on the impact of firm performance on corporate governance may be less emphasized, but some earlier studies have indicated that firm performance should affect governance structure (Krause and Semadeni, 2014), and firms that perform well should prefer a high level of disclosure to help increase market liquidity and reduce costs involving information asymmetry, equity capital, and trading (Botosan, 1997; Miller, 2002). Put differently, the causality when firm performance impacts corporate governance should exist, but it still requires further evidence.

Some studies still support the negative association between firm performance and information T&D, arguing that firms with poor performance might want to increase their disclosure levels. Holder-Webb (2002) found that firms with inferior performances might want to disclose more information to prevent potential litigation, while Elliott and Jacobson (1994) stated that the costs involved in insufficient disclosure and untruthful information can trap firms in disputes or litigation. Therefore, a firm that performs poorly should still attempt to increase its information disclosure.

Our argument is that, although firms with poor performance could attempt an increased level of disclosure, the consequent potential risk decreases the probability of such an attempt. Miller (2002) presented that firms modify disclosure in accordance with firm performance and that firms with declining performances tend to provide short-term forecasts and avoid discussing long-term, negative information in earnings. Furthermore, evidence has shown

that firms with poor performances increase disclosure as soon as they turn their performances around (Miller, 2002). In other words, when firms in financial difficulties regain their momentum, they increase disclosure levels to signal their successful turnaround. The agency theory supports that a firm that performs well should exhibit sound governance due to reduced agency problems and costs of information asymmetry. Based on the theoretical and literature perspectives, this study predicts that firms with better performances can reveal higher levels of information T&D.

Information T&D in Taiwan can be introduced through two concepts: overall information T&D and voluntary information T&D in the Information Disclosure and Transparency Ranking System (IDTRS). Thus, from the perspectives of overall and voluntary information T&D, this study predicts that firms with better performance can reveal higher levels of overall information T&D and voluntary information T&D, respectively. Accordingly, a positive relationship between firm performance and information T&D should exist to further clarify the moderating power of FINIs if FINIs can moderate the relationship between firm performance and information T&D.

2.2.2 The moderating effects of foreign institutional investors

As shown above, firm performance should be positively related to information T&D (overall information T&D and voluntary information T&D, respectively). Since FINIs can be regarded as an impetus to encourage more information T&D, FINIs should also play an important role in affecting the relationship between firm performance and information T&D. The interaction between FINIs and firm performance should be able to positively impact information T&D - that is, FINIs should be able to strengthen the main effect (i.e., the relationship between firm performance and information T&D). Thus, we propose the following hypotheses to further clarify the moderating role of FINIs as to whether they can positively moderate the relationship between firm performance and information T&D on an overall or voluntary basis.

H2: Investment in firms by FINIs can positively moderate the relationship between firm performance and the information T&D practices of the invested firms.

H2a: Investment in firms by FINIs can positively moderate the relationship

between firm performance and the overall information T&D practices of the invested firms.

H2b: Investment in firms by FINIs can positively moderate the relationship between firm performance and the voluntary information T&D practices of the invested firms.

3. Methodology

3.1 Data and sample

Data for the current study were gathered from the Securities and Futures Institute (SFI) of Taiwan[2] and Taiwan Economic Journal databases. The study included data on firms listed on the Taiwan Stock Exchange across 21 industries (cement, food, plastics, textiles, machinery, electronic cables, chemistry, glass and ceramics, paper, steel, rubber, automobiles, electronics, construction, shipping, tourism, finance and insurance, trade and merchandise, securities, gas and oil, and others). The sample is a panel of 840 unique companies across a six-year span from 2005 to 2010. Those companies meeting the data requirements were studied.

3.2 Measures

Overall T&D. We measured firms' information transparency by examining the level of overall disclosure and level of voluntary disclosure. To examine the level of overall disclosure, we first assigned 5 points to firms with the highest grade (A+)[3] and 1 point to firms with the lowest grade (C-). For firms graded as

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[2] In Taiwan, to comply with international disclosure standards, SFI established the ranking committee and launched IDTRS to evaluate listed firms' information T&D. The ranking committee is composed of experts and practitioners from academia and industry, and the ranking is conducted on a yearly basis.

[3] Data are collected from IDTRS of SFI. Companies are ranked according to 5 levels of transparency (from highest to lowest): Grade A+, Grade A, Grade B, Grade C, and Grade C-. The rankings are based on results from 95 items identified as the evaluation criteria and categorized into the following 5 groups: compliance with mandatory disclosure laws, timeliness of reporting, disclosure of financial forecast, disclosure of annual report, and corporate website disclosure. Final results with the corresponding levels are subject to the IDTRS Committee of SFI.

A, B, and C, we assigned 4, 3, and 2 points, respectively. Next, we constructed a dummy variable equal to "1" for firms above the average and "0" for those at or below the average.

Voluntary T&D. To examine the level of voluntary disclosure, we reviewed the annual reports published by SFI during the investigation period and collected the listed firms in these reports, since these firms were scored higher based on the particular voluntary disclosure items than those not listed in the reports - that is, we coded "1" to those firms listed in the reports that show higher voluntariness in T&D, while firms not listed in the reports were coded as "0."

Firm performance. This study measured firm performance using the three-year average of the return on assets (ROA) from the previous three years as a measurement.

FINI investment. This study measured FINIs' investments based on two perspectives. The first perspective, represented by FINI investment-I, concerns an investment decision made by the FINIs: "1" was coded if the FINIs invested in the firm, and "0" was coded if they did not. The second perspective, represented by FINI investment-II, concerns the ratio of foreign investment to the total investment a firm received.

Firm age. The present research controlled for firm age, because it may impact corporate transparency (Leuz and Oberholzer-Gee, 2006). To measure firm age, we subtracted the founding year from the years under study. In order to control for the potential diminishing impact of firm age, we also used a logarithmic transformation of firm age adapted from Tien, Chiu, and Chen (2011) for this study.

Firm size. This study also controlled for firm size, because it may affect firm performance (Han, Chao, and Chuang, 2012; Luan and Tang, 2007) and investment from FINIs (Badrinath, Gay, and Kale, 1989). We used the number of employees in a logarithmic form to measure firm size.

Family shares. Family ownership may affect corporate transparency and disclosure (Lane *et al*., 2006; Wan-Hussin, 2009). This study transformed family-owned shares into a logarithmic form to control for family influence on the relationships among firm performance, foreign institutional investment, and information T&D.

Family seat control. Because family-controlled seats on a board may affect

information transparency (Chiang and He, 2010), this study also controlled for seats owned by family members by comparing seats owned by a family to total seats on a firm's board of directors.

Industry differences. This study used a sample of firms across 21 industries. To control for differences between industries, this study included the industry differences measured by the intensity of research and development (R&D) as a control variable. The intensity of R&D can be obtained through R&D expenses divided by sales.

Foreign board. This study controlled for the influence of foreign investors by comparing seats owned by foreign investors to total seats on the board of a firm.

3.3 Data analysis

This study pooled data across firms from 21 industries with the final sample comprised of a panel of 840 unique firms across a six-year span. Statistical analysis was based on cross-sectional time series regressions (i.e., panel data) while controlling for firm-level characteristics such as firm age, size, shares and board seats owned by a family, industry differences, and board seats owned by FINIs. This study used fixed-effects models to examine models with overall T&D as the dependent variable, because the results of Hausman tests reveal a statistically significant p value, which indicates that the fixed-effects models are preferred (Models 1a and 2a: $p < 0.05$). Random-effects models are preferred for those models with voluntary T&D as the dependent variable, because the results of Hausman tests reveal a p value that is not statistically significant (Models 1b and 2b: $p > 0.05$), while the results of the Breusch-Pagan Lagrange multiplier tests reveal a significant p value ($p < 0.05$), which rejects the null hypothesis and thus conclude that random-effects models are appropriate. Thus, after the Hausman tests and the Breusch-Pagan Lagrange multiplier tests, this study employed and examined fixed-effects models or random-effects models, respectively. Statistical analyses were conducted using cross-sectional time-series regressions with the bootstrap[4] command in the Stata software

[4] According to Hair *et al.* (2006), a bootstrapping technique combines estimates from all the subsamples, "providing not only the 'best' estimated coefficients …, but their expected

program. Fixed-effects models also control for the time effect. For variables in models that examine the moderating impact of FINIs, the continuous variables are standardized.

This study also included post hoc tests by analyzing subgroups from two perspectives: size and year of FINIs' investments. In terms of the size of FINIs' investments, we further identified any differences between large-sized FINIs' investments and small-sized FINIs' investments in the current research agenda. This study used the median of each firm's average FINI investment in the sample to further categorize the sampled firms into two subgroups (those with large-sized FINI investments and those with small-sized FINI investments) for subgroup analyses. In terms of the year of FINIs' investments, this study further identified any differences between FINIs before 2008 and FINIs after 2008 and categorized the sampled firms into two subgroups (before 2008 [2005-2007] and after 2008 [2008-2010]) in the current research agenda for subgroup analyses.

4. Results

4.1 Descriptive statistics and correlation analysis

Table 1 shows the results of the descriptive statistics and correlations among the tested variables in each model. The variables presented are as follows: overall T&D, voluntary T&D, firm performance, FINI investment-I, FINI investment-II, firm age, firm size, family shares, family seat control, industry differences, and foreign board members. As Table 1 shows, multicollinearity between the variables in each tested model was not serious, according to the results of the Pearson's correlations. Regarding the interaction terms, we followed a common practice to standardize explanatory variables, including those that comprise an interaction term before multiplying them to reduce possible multicollinearity. Hence, the concerns over multicollinearity for the present study can be eased.

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variability…" (pp. 1-2); this approach does not depend on statistical assumptions to assess statistical significance, but "instead it examines the actual values from the repeated samples to make this assessment" (pp. 25).

Table 1
Descriptive statistics and correlations matrix

Variables	Mean	Standard deviation	1	2	3	4	5	6	7	8	9	10	11
1. Overall T&D	0.823	0.382	1										
2. Voluntary T&D	0.105	0.307	0.177**	1									
3. Firm performance	8.004	9.166	0.159**	0.096**	1								
4. FINI investment-I	0.885	0.319	0.056**	-0.010	0.055**	1							
5. FINI investment-II	0.082	0.124	0.027	-0.027	0.007	0.336**	1						
6. Firm age	1.315	0.339	-0.112**	0.033*	-0.141**	-0.105**	-0.049**	1					
7. Firm size	2.708	0.658	0.183**	0.213**	0.263**	-0.010	-0.002	-0.186**	1				
8. Family shares	0.859	0.658	-0.021	0.090**	-0.006	-0.028	-0.021	0.282**	-0.106**	1			
9. Family seat control	60.582	22.113	-0.053**	0.081**	-0.223**	-0.087**	-0.019	0.363**	0.091**	0.318**	1		
10. Industry differences	0.031	0.189	0.088**	-0.004	0.106**	0.017	0.010	-0.103**	0.153**	-0.152**	-0.125**	1	
11. Foreign board	0.023	0.092	0.037*	0.012	0.041**	0.023	0.006	-0.061**	0.095**	0.049**	-0.001	0.010	1

Note: *p<0.05, **p<0.01.

Table 2
Regression results of model 1a (H1a)

	Overall T&D	
FINI investment-I	0.149	
FINI investment-II		0.043
Firm performance	0.010	0.014
Firm age	-3.674	-4.583
Firm size	(omitted)	(omitted)
Family shares	-0.192	-0153
Family seat control	-0.014	-0.012
Industry differences	-1.583	-1.966
Foreign board	-1.861	-2.041
Year effect	(included)	(included)
Wald chi2	135.31**	133.98**
N/n	1236/230	1187/220

Note: † $p < 0.10$; * $p \leq 0.05$; ** $p \leq 0.01$; *N/n* = # of observations/ # of firms.

4.2 The relationships between foreign institutional investors and information T&D

Table 2 shows the results of Model 1a for Hypothesis 1a, which conjectures a significant and positive relationship between foreign institutional investment and overall information T&D. The results reveal that foreign institutional investment fails to significantly impact the overall information T&D practices (FINI investment-I: β = 0.149, non-significant [n.s.]; FINI investment-II: β = 0.043, n.s.). In other words, regardless of the measures of FINIs' investments, the impact of foreign institutional investment on the overall information T&D practices is not significant; thus, Hypothesis 1a is not supported.

As far as Model 1b for Hypothesis 1b is concerned, it hypothesizes a significant and positive relationship between foreign institutional investment and voluntary information T&D. However, the results in Table 3 reveal that foreign institutional investment fails to significantly affect the voluntary information T&D practices (FINI investment-I: β = 0.270, n.s.; FINI investment-II: β = -0.198, n.s.). Put differently, regardless of the measures of FINIs' investments, the impact of foreign institutional investment on the voluntary information T&D practices is not significant. Thus, the evidence does not support Hypothesis 1b.

Table 3
Regression results of model 1b (H1b)

	Voluntary T&D	
FINI investment-I	0.270	
FINI investment-II		-0.198
Firm performance	0.078**	**0.076***
Firm age	1.885*	1.891†
Firm size	1.640**	1.677**
Family shares	0.008	0.062
Family seat control	0.025*	0.022*
Industry differences	-1.220	-1.250
Foreign board	-0.962	-0.780
Constant	-15.365**	-15.085**
Wald chi2	28.86**	37.77**
N/n	3377/657	3279/648

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firms

Table 4
Regression results of model 2a (H2a)

	Overall T&D				
Firm performance		0.095	0.063	0.129	0.139
FINI investment-I		0.149	0.159		
FINI investment-II				0.005	0.013
Firm age	-2.579*	-1.247	-1.243	-1.555	-1.613
Firm size	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Family shares	-0.182	-0.126	-0.128	-0.101	-0.106
Familyseat control	-0.308	-0.313	-0.312	-0.269	-0271
Industry differences	-0.082	-0.299	-0.295	-0.371	-0.337
Foreignboard	-0212	-0.172	-0.172	-0.188	-0.186
Firm performance X FINI Investment-I			0.036		
Firm performance X FINI Investment-II					0.096
Year effect	(included)	(included)	(included)	(included)	(included)
Wald chi2	97.48**	113.57**	216.71**	184.63**	124.52**
N/n	1645/286	1236/230	1236/230	1187/220	1187/220

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firms.

4.3 The moderating effect of FINIs' investments on the relationship between firm performance and information T&D

Table 4 provides evidence to examine Hypothesis 2a (for Model 2a), which proposes the positive moderating effect of FINIs' investments on the relationship between firm performance and information T&D on an overall basis. The evidence reveals that FINIs' investments fail to moderate the relationship between firm performance and the overall information T&D practices (FINI investment-I: β = 0.036, n.s.; FINI investment-II: β = 0.096, n.s.). Thus, regardless of FINIs' measures, the moderating impact of FINIs' investments on the relationship between firm performance and the overall information T&D practices is not significant, and these evidence-based findings do not support Hypothesis 2a.

Table 5 provides evidence to examine Hypothesis 2b (for Model 2b), which suggests the positive moderating effect of FINIs' investments on the relationship between firm performance and information T&D on a voluntary basis. The evidence reveals that when FINIs' investments are measured by FINI investment-I, FINIs' investments fail to moderate the relationship between firm performance and the voluntary information T&D practices (β = -0.255, n.s.). However, when FINIs' investments are measured by FINI investment-II, FINIs' investments can moderate the relationship between firm performance and the voluntary information T&D practices, but only on a marginal level (β = -0.210, $p < 0.1$). Thus, no strong evidence is found to support Hypothesis 2b.

4.4 Subgroup analyses

This study added post hoc analyses by examining the subgroups from the following two perspectives: size of FINIs' investments (Models 3a, 3b, 4a, and 4b) and year of FINIs' investments (Models 5a, 5b, 6a, and 6b), respectively. In terms of the subgroups by the size of FINIs, Table 6 shows the results of Model 3a, which examines the relationship between foreign institutional investors and the overall information T&D under different sizes of FINIs. Regardless of the measures of FINIs, foreign institutional investment failed to significantly impact the overall information T&D practices in firms with large FINIs (FINI investment-I: β = 0.686, n.s.; FINI investment-II: β = 0.559, n.s.), while in firms with small FINIs, the evidence also indicates that foreign institutional

Table 5
Regression results of model 2b (H2b)

	Voluntary T&D				
Firm performance		0.718**	0.941†	0.699**	0.692*
FINI investment-I		0.270	0.297		
FINI investment-II				-0.025	0.011
Firm age	0.469*	0.639*	0.635*	0.641*	0.623†
Firm size	1.206**	1.078**	1.077**	1.103**	1.109**
Family shares	0.023	0.005	0.012	0.041	0.046
Family seat control	0.444*	0.552*	0.547**	0.481*	0.493*
Industry Differences	-0.221	-0.230	-0.230	-0.236	-0.224
Foreign board	-0.123	-0.089	-0.091	-0.072	-0.082
Firm performance X FINI Investment-I			-0.255		
Firm performance X FINI Investment-II					-0.210†
Constant	-5.838**	-6.361**	-6.354**	-6.150**	-6.170**
Wald chi2	44.14**	29.72**	44.14**	42.23**	48.67**
N/n	4176/732	3377/657	3377/657	3279/648	3279/648

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firms.

Table 6
Subgroup Analysis: Regression Results of Model 3a

	Overall T&D			
	Large-sized FINIs' Investments		Small-sized FINIs' Investments	
FINI Investment-I	0.686		0.162	
FINI Investment-II		0.559		-1.441
Firm Performance	-0.016	-0.007	0.063	0.063
Firm Age	5.737	5.951	-23.848**	-31.919**
Firm Size	(omitted)	(omitted)	(omitted)	(omitted)
Family Shares	-0.064	-0.029	-0.553	-0.493
Family Seat Control	-0.009	-0.005	-0.027	-0.025
Industry Differences	-1.909	-2.164	2.333	-2.523
Foreign Board	-3780	-3.829	-7.403	-9.689*
Year Effect	(included)	(included)	(included)	(included)
Wald chi2	95.72**	107.80**	60.49**	70.92**
N/n	664/119	640/115	572/111	547/105

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firms

investment failed to significantly impact the overall information T&D practices, regardless of the measures of FINIs (FINI investment-I: β = 0.162, n.s.; FINI investment-II: β = -1.441, n.s.). Thus, these findings further validate the rejection of Hypothesis 1a.

Similar findings apply to the voluntary information T&D. According to Table 7 for Model 3b, which examines the relationships between FINIs and the voluntary information T&D under different sizes of FINIs, foreign institutional investment also failed to significantly impact the voluntary information T&D practices in firms with large FINIs (FINI investment-I: β = 0.209, n.s.; FINI investment-II: β = 0.493, n.s.), while in firms with small FINIs, foreign institutional investment failed to significantly impact the voluntary information T&D practices, regardless of the measures of FINIs (FINI investment-I: β = 0.362, n.s.; FINI investment-II: β = -0.752, n.s.). Thus, the findings fail to support Hypothesis 1b, regardless of the size of FINIs. In other words, regardless of the measures of FINIs, there are no significant relationships between FINIs and their invested firms' information T&D on an overall or voluntary basis even under different sizes of FINIs.

Table 7
Subgroup analysis: Regression results of model 3b

	Voluntary T&D			
	Large-sized FINIs' Investments		Small-sized FINIs' Investments	
FINI investment-I	0.209		0.362	
FINI investment-II		0.493		-0.752
Firm performance	0.075*	0.072†	0.095*	0.092†
Firm age	1.499	1.540	1.374	1.393
Firm size	1.753*	1.858**	1.431*	1.491**
Family shares	-0.015	0.054	0.010	0.088
Family seat control	0.024	0.024†	0.025†	0.019
Industry differences	-2.915	-3.004	-1.196	-1.256
Foreign board	2.249	2.786	-3.206	-3.202
Constant	-16.021**	-15.858**	-13.600**	-13.173**
Wald chi2	16.04*	22.35**	22.57**	33.86**
N/n	1932/353	1896/351	1445/304	1383/297

Note: † $p < 0.10$; * $p \leq 0.05$; ** $p \leq 0.01$; *N/n* = # of observations/ # of firms.

In terms of the subgroup analysis of Model 4a, which is used to examine the moderating effect of FINIs' investments on the relationship between firm performance and the overall information T&D, Table 8 reveals the following results: in firms with large FINIs, FINIs fail to moderate the relationship between firm performance and the overall information T&D (FINI investment-I: β = -1.269, n.s.; FINI investment-II: β = 0.002, n.s.); in firms with small FINIs, when FINIs are measured by FINI investment-I, there is no evidence to support the significant moderating impact of FINIs on the relationship between firm performance and the overall T&D practices (FINI investment-I: β = 0.454, n.s.); however, when FINI investment-II represents foreign institutional investment, it can moderate the relationship between firm performance and the overall T&D practices, but only on a marginal level (FINI investment-II: β = 0.476, $p < 0.1$). Therefore, no strong evidence exists to support a claim that foreign institutional investment can interact with firm performance to have a statistically significant impact on a firm's overall T&D practices. These evidence-based findings through subgroups on the size of FINIs also fail to support Hypothesis 2a.

From the perspective of voluntary T&D, when foreign institutional investment is measured by FINI investment-I, large FINIs' investments can negatively moderate the relationship between firm performance and voluntary information T&D, but only on a marginal level (β = -1.298, $p < 0.1$), as Table 9 shows; while firms with large FINIs' investments fail to significantly moderate the relationship between firm performance and the voluntary information T&D practices when FINIs' investments are represented by FINI investment-II (β = -0.278, n.s.). Thus, regardless of the measures of FINIs, large FINIs' investments fail to interact with firm performance to have a statistically significant impact on a firm's voluntary T&D practices. In terms of small FINIs' investments, firms with small FINIs fail to significantly moderate the relationship between firm performance and voluntary T&D, regardless of the measures of FINIs (FINI investment-I: β = -0.066, n.s.; FINI investment-II: β = -0.171, n.s.). Thus, these evidence-based findings reveal no significant moderating impacts of FINIs on the relationship between firm performance and a firm's voluntary T&D practices and fail to support Hypothesis 2b.

Compared to the results from the complete sample and the results from the subgroups based on the size of FINIs, the findings are consistent, although FINIs

Table 8
Subgroup analysis: Regression results of model 4a

	Overall T&D (Large-sized FINIs' investments)					Overall T&D (Small-sized FINIs' investments)				
Firm performance		-0.151	1.125	-0.070	-0.069		0.536	0.269	0.538	0.640
FINI Investment-I		0.686	0.434				0.162	0.245		
FINI Investment-II				0.077	0.077				-0.124	0.003
Firm age	1.694	2.002	1.976	2.076	2.076	-7.848**	-7.582*	-7.777*	-10.148**	-10.737**
Firm size	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Family shares	-0.050	-0.043	-0.039	-0.019	-0.019	-0.366	-0.359	-0.395	-0.320	-0.282
Family seat control	-0.116	-0.193	-0.232	-0.110	-0.110	-0.535†	-0.609	-0.573	-0.549	-0.541
Industry differences	-0.106	-0.089	-0.136	-0101	-0.101	0.618	0.599	0.464	-0.648	-1.935
Foreign board	-0.327	-0.333	-0.339	-0.338	-0.338	-0.381	-0.709	-0.729	-0.928	-0.875
Year effect	(included)	(included)	(included)	(included)	(included)	(included)	(included)	(included)	(included)	(included)
firm Performance X FINI Investment-I			-1.269					0.454		
Firm Performance X FINI Investment-II					0.002					0.476†
Wald chi2	56.51**	52.66**	93.58**	105.01**	49.56**	86.55**	51.45**	68.52**	100.10**	53.74**
N/n	689/121	664/119	664/119	640/115	640/115	956/165	572/111	572/111	547/105	547/105

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firms.

Table 9
Subgroup analysis: Regression results of model 4b

	Voluntary T&D (Large-sized FINIs' investments)					Voluntary T&D (Small-sized FINIs' investments)				
Firm performance		0.744†	2.017*	0.697†	0715†		0.814*	0.863†	0.783†	0.766†
FINI Investment-I		0.216	0.159				0.362	0.380		
FINI Investment-II				0.067	0.103				-0.065	-0.037
Firm age	0.397	0.540	0.525	0.537	0.526	0.321	0.437	0.435	0.443	0.417
Firm size	1.292**	1.180**	1.136*	1.215*	1.236**	1.138**	0.946*	0.943*	0.985*	0.991*
Family shares	0.022	-0.027	-0.028	0.036	0.059	0.001	0.007	0.011	0.057	0.042
Family seat control	0.459*	0.520*	0.497	0.515†	0.525†	0422†	0.553†	0.549†	0.418	0.431
Industry differences	-0.082	-0.149	-0.181	-0.140	-0151	-0.302	-0.307	-0.310	-0.323	-0.298
Foreign board	0.232	0.202	0.196	0.246	0.249	-0.315†	-0.307	-0.309	-0.307	-0.325
Firm performance X FINI Investment-I			-1.298†					-0.066		
Firm performance X FINI investment-II					-0.278					-0.171
Constant	-6.793**	-7.786**	-8.069**	-6.746**	-6.851**	-5..355**	-5.733**	-5.773**	-5.493**	-5.464**
Wald chi2	33.18**	28.01**	31.84**	16.82*	28.54**	22.12**	20.30**	22.62**	17.17*	20.67*
N/n	1972/353	1932/353	1932/353	1896/351	1896/351	2204/379	1445/304	1445/304	1383/297	1383/297

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firm.

in firms with large foreign institutional investment may have marginal power to weaken the impact of firm performance on a firm's voluntary T&D when foreign institutional investment is measured by FINI investment-I.

This study next analyzed subgroups by years when FINIs made their investments (Models 5a, 5b, 6a, and 6b). Table 10 shows the results of Model 5a, which examines the relationships between FINIs and the overall information T&D under different time frames of FINIs' investments received. Regardless of the measures of FINIs, foreign institutional investment failed to significantly impact the overall information T&D practices in firms with foreign institutional investment received prior to 2008 (FINI investment-I: β = -0.001, n.s.; FINI investment-II: β = 0.271, n.s.), whereas in firms with foreign institutional investment received after 2008, the evidence also indicates that foreign institutional investment failed to significantly impact the overall information T&D practices, regardless of the measures of FINIs (FINI investment-I: β = 0.767, n.s.; FINI investment-II: β = -0.226, n.s.). Thus, the evidence further validates the conclusion not to accept Hypothesis 1a.

Similar findings apply to the voluntary information T&D. According to Table 11 for Model 5b, which examines the relationship between FINIs and the voluntary information T&D under different time frames of FINIs' investments received, the results show that foreign institutional investment also failed to significantly impact the voluntary information T&D practices in firms with foreign institutional investment received prior to 2008 (FINI investment-I: β = 0.623, n.s.; FINI investment-II: β = -1.206, n.s.), while in firms with foreign institutional investment received after 2008, foreign institutional investment also failed to significantly impact the voluntary information T&D practices, regardless of the measures of FINIs (FINI investment-I: β = 0.023, n.s.; FINI investment-II: β = -0.951, n.s.). Thus, the findings fail to support Hypothesis 1b, regardless of the time frames of foreign institutional investment received. With the findings that fail to support Hypotheses 1a and 1b, the relationships between FINIs and their invested firms' information T&D on an overall or voluntary basis are not significant even under different time frames, regardless of the measures of FINIs.

In terms of the subgroup analysis on Model 6a, which examines the moderating effect of FINIs' investments on the relationships between firm

Table 10
Subgroup analysis: Regression results of model 5a

	Overall T&D			
	Before 2008		After 2008	
FINI investment-I	-0.001		0.767	
FINI investment-II		0.271		-0.226
Firm performance	-0.018	-0.015	0.049	0.043
Firm age	6.956	3.862	-3.533	-4.425
Firm size	(omitted)	(omitted)	(omitted)	(omitted)
Family shares	0.129	0.173	-0.247	-0.430
Family seat control	-0.013	-0.007	-0.039	-0.027
Industry differences	-3.516	0.870	-2.354	-2.669
Foreign board	-10.092	-9.920	1.718	2.650
Year effect	(included)	(included)	(included)	(included)
Wald chi2	21.58*	20.18*	23.49**	22.18**
N/n	441/152	420/145	324/111	315/108

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firms.

Table 11
Subgroup analysis: Regression results of model 5b

	Voluntary T&D			
	Before 2008		After 2008	
FINI investment-I	0.623		0.023	
FINI investment-II		-1.206		-0.951
Firm performance	0.055*	0.044	0.086†	0.085†
Firm age	1.657	1.415	1.419	1.472
Firm size	1.540**	1.591**	2.069**	2.105**
Family shares	0.340	0.426	-0.125	-0.216
Family seat control	0.021*	0.015	0.029*	0.026*
Industry differences	-1.247	-1.228	-0.748	-0649
Foreign board	0.977	1.227	-3.524	-4.030
Constant	-14.951**	-13.491**	-17.489**	-16.666**
Wald chi2	33.72**	20.59**	29.32**	39.63**
N/n	1668/616	1615/606	1709/626	1664/615

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firms.

performance and the overall information T&D, Table 12 reveals the results: in firms with foreign institutional investment received prior to 2008, FINIs fail to moderate the relationship between firm performance and the overall information T&D (FINI investment-I: β = 0.359, n.s.; FINI investment-II: β = 0.118, n.s.); in firms with foreign institutional investment received after 2008, there is no evidence to support the significant moderating impact of FINIs on the relationship between firm performance and the overall T&D practices (FINI investment-I: β = -0.272, n.s.; FINI investment-II: β = 0.068, n.s.). Therefore, no strong evidence exists to support a claim that foreign institutional investment can interact with firm performance to impact a firm's overall T&D practices. These evidence-based findings through subgroups based on the years when FINIs made their investments also fail to support Hypothesis 2a.

From the perspective of voluntary T&D, as Table 13 shows, in firms with FINIs' investments received prior to 2008, FINIs' investments fail to significantly moderate the relationship between firm performance and the voluntary information T&D practices (FINI performance-I: β = -0.329, n.s.; FINI performance-II: β = -0.228, n.s.). Thus, regardless of the measures of FINIs, FINIs' investments prior to 2008 fail to interact with firm performance to affect a firm's voluntary T&D practices. In terms of FINIs' investments received after 2008, such investments fail to significantly moderate the relationship between firm performance and voluntary T&D, regardless of measures of FINIs (FINI investment-I: β = -0.165, n.s.; FINI investment-II: β = 0.163, n.s.). Thus, these evidence-based findings reveal no significant moderating impacts of FINIs on the relationships between firm performance and a firm's voluntary T&D practices, regardless of the measures and years when FINIs made their investments, and further validate the conclusion to reject Hypothesis 2b.

Compared to the results from the complete sample and the results from the subgroups based on years when FINIs made their investments, the findings are consistent. In other words, investments in firms by FINIs fail to affect the invested firms' overall or voluntary information T&D practices, regardless of the measures or time frames of FINIs. Moreover, regardless of the measures or time frames of FINIs, investments in firms by FINIs fail to moderate the relationship between firm performance and the overall or voluntary information T&D practices of the invested firms.

Table 12
Subgroup analysis: Regression results of model 6a

	Overall T&D (Before 2008)					Overall T&D (After 2008)				
Firm performance		-0.175	-0.472	-0.147	-0.110		0.424	0.700	0.372	0.376
FINI investment-I		-0.001	0.047				0.767	0.696		
FINI investment-II				0.035	0.054				-0.023	-0.036
Firm age	0.756	2.378	2.374	1.320	1.087	-1.716	-1.186	-1.158	-1.485	-1.490
Firm size	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)	(omitted)
Family shares	0.246	0.086	0.050	0.114	0.109	-0.250	-0.161	-0.156	-0.281	-0.275
Family seat control	-0.359	-0.285	-0.263	-0.158	-0.158	-0.473	-0.870	-0.912	-0.596	-0.598
Industry differences	-0.355	-0.303	-0.351	0.075	0.147	-0.488	-0.590	-0.733	-0.669	-0.695
Foreign board	-0.837	-0.958	-0.944	-0.942	-0.974	-0.335	0154	0.099	0.237	-0.273
Year effect	(included)	(included)	(included)	(included)	(included)	(included)	(included)	(included)	(included)	(included)
Firm performance X FINI investment-I			0.359					-0.272		
Firm performance X FINI investment-II					0.118					0.068
Wald chi2	15.07*	19.60*	18.39*	27.98**	19.25*	26.34**	22.46**	21.34*	31.79**	20.52*
N/n	563/190	441/152	441/152	420/145	420/145	437/147	324/111	324/111	315/108	315/108

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firms.

Table 13
Subgroup analyss: Regression results of model 6b

	Voluntary T&D (Before 2008)					Voluntary T&D (After 2008)				
Firm performance		0.538†	0.837	0.429	0.415		0.721†	0.879	0.725†	0.749*
FINI investment-I		0.623	0.665				0.037	0.036		
FINI investment-II				-0.155	-0.114				-0.112	-0.175
Firm age	0.422	0.567	0.559	0.484	0.473	0.329	0.457	0.468	0.494	0.509
Firm size	1.180**	1.013**	1.003**	1.046**	1.057**	1.546**	1.292**	1.339**	1.385**	1.399**
Family shares	0.314	0.225	0.227	0.281	0.279	-0.184	-0.113	-0.105	-0.141	-0.154
Family seat control	0.370†	0.465	0.459†	0.325	0.342	0.521*	0.593*	0.600*	0.580*	0.586*
Industry differences	-0.105	-0.107	-0.107	-0.106	-0.100	-0.198	-0.203	-0.187	-0.163	-0.165
Foreign board	0.051	0.093	0.094	0.117	0.110	-0.082	-0.322	-0.338	-0.361	-0.363
Firm performance X FINI investment-I			-0.329					-0.165		
Firm performance X FINI investment-II					-0.228					0.163
Constant	-6.112**	-6.620**	-6.625**	-5.846**	-5.938**	-7.965**	-8.258**	-7.833**	-7.139**	-7.200**
Wald chi2	31.61**	21.29**	29.77**	28.20**	17.79*	51.82**	22.71**	25.29**	19.01*	25.67**
N/n	2040/705	1668/616	1668/616	1615/606	1615/606	2136/728	1709/626	1709/626	1664/615	1664/615

Note: † $p < 0.10$； * $p \leq 0.05$； ** $p \leq 0.01$; *N/n* = # of observations/ # of firms.

In summary, evidence-based findings from various perspectives reveal no significant support for the impact of FINIs on a firm's information T&D. Moreover, no statistically significant evidence was found to support the moderating impact of FINIs on the relationship between firm performance and a firm's information T&D. Thus, contrary to conventional wisdom and prior research findings (Suzuki *et al*., 2010), FINIs' investments are not powerful enough to significantly encourage more information disclosure, and the efficacy of FINIs' investments is therefore mythical.

5. Conclusion and implications

This study aims to validate the impact of FINIs as to whether it is a reality that FINIs have the efficacy to lead a firm to a better state of corporate governance or if such an expectation is just a myth. To solve this puzzle, this study particularly examined the impact of FINIs' investments on firms' information disclosure practices from multifaceted perspectives, which include the impacts through direct and moderating perspectives on FINIs' investments. Furthermore, this study added post hoc tests by examining subgroups based on the size of FINIs and years when FINIs made their investments for further evidence to validate the efficacy of FINIs.

As far as the direct impact is concerned, the complete sample evidence shows that FINIs play an insignificant role in encouraging more information disclosure, either from an overall aspect or even a voluntary aspect. Evidence from the subgroup analyses also supports this finding. Hence, FINIs have no significant efficacy to directly improve a firm's information disclosure and thus cannot be regarded as an impetus toward sound corporate governance from the perspective of direct impact.

This study also explored the efficacy of FINIs not only from the direct perspective but also from the moderating perspective. As far as the moderating impact is concerned, FINIs fail to interact with firm performance to affect firms' overall information disclosure practices in the complete sample as well as in the subgroup sample, although FINI investment-II may moderate the relationship between firm performance and a firm's overall T&D practices in firms with small-sized FINIs, but only on a marginal level. Hence, FINIs show no

statistically significant power in strengthening the impact of firm performance on a firm's overall disclosure mechanism. In terms of voluntary T&D practices, FINI investment-II may moderate the relationship between firm performance and a firm's voluntary T&D practices in the complete sample, while FINI investment-I may moderate the relationship between firm performance and a firm's voluntary T&D practices in firms with large-sized FINIs, but their moderating impacts on the relationship between firm performance and a firm's voluntary disclosure are only marginal. In other words, FINIs fail to interact with firm performance to affect a firm's voluntary information disclosure in the complete sample as well as in the subgroup sample. Hence, FINIs show no statistically significant power in strengthening the impact of firm performance on a firm's voluntary disclosure mechanism. Thus, from the moderating perspective, FINIs' efficacy in moderating the impact of firm performance on a firm's corporate governance mechanism is also regarded as a myth.

In conclusion, the impact of FINIs' investments on firms' corporate governance mechanisms in disclosing information is insignificant. Based on these findings from the direct and moderating perspectives for firms in an emerging economy, the ability of FINIs to encourage a sound corporate governance mechanism is limited, which is contrary to the conventional wisdom and the argument of prior research (Suzuki *et al*., 2010). Thus, the efficacy of FINIs is mythical - that is, regardless of FINIs' measures, sizes, or years when FINIs made their investments, a firm in an emerging economy should not expect that FINIs' investments can significantly benefit an invested firms' information T&D practices for better governance. The rationale behind these findings can be explained as follows. Information transparency should matter for sound corporate governance, but information asymmetry may protect these FINIs from their competition due to limited access to company information, and thus these FINIs may not necessarily encourage more T&D for their invested firms. Next, FINIs have experiences and expertise in selecting good investment targets worldwide. Therefore, those firms being targeted by FINIs may have previously performed well in corporate governance, and hence these firms invested by FINIs may not necessarily make significant progress in implementing their T&D.

Evidence from subgroups additionally reveals that large FINIs' investments can marginally weaken the impact of firm performance on a firm's voluntary

disclosure, while small FINIs' investments can marginally strengthen the impact of firm performance on a firm's overall disclosure. The causes of these differences, although marginal, from the data derived from the subgroups may also highlight the aforementioned rationale, and one could further argue that large FINIs may discourage a firm's voluntary disclosure due to information asymmetry, while with less experience and expertise, small FINIs are more likely to select targets with less governance but more room to enhance it and thereby experience more significant progress in implementing these targets' T&D with the investment from FINIs.

These findings imply that the relationship between FINIs' investments and information disclosure may not be significant and linear - that is, firms' disclosures shall not be significantly affected by FINIs' investments, and too much disclosure may not be the best scenario for FINIs that aim to maximize their own interests from information asymmetry. Complemented by post hoc evidence, this study validates the weak impact of FINIs on a firm's disclosure practices and implies that FINIs most likely play a typical role, which emphasizes short-term financial performance. Thus, theoretically and academically, this study provides empirical evidence with which to examine the perspectives of the agency theory and international investment in relation to the impacts of FINIs from multifaceted aspects. As such, it suggests new avenues of research for the literature on causality among firm performance, FINIs and governance practices, and the perspective of agency problems. This study offers evidence-based findings to practitioners and policy makers with interests in capital market liberalization as well as in enhancing the legitimacy of the corporate governance systems and mechanisms in emerging economies. It also provides investees with evidence in terms of their strategies to attract investors for better governance as well as offers investors a direction to strategize their investment portfolios.

6. Limitation and directions for future research

The quality and originality of this research can be found in the contributions of this article, which also comes with limitations that can be regarded as meaningful avenues for future research. First, the data we employed to measure

the information disclosure of firms were collected from the information transparency ranking results, which show only the comprehensive scores instead of a breakdown of the results. Due to the unavailability of a detailed breakdown of the data, firms' specific scores cannot be discriminated from the five categories that the system measured.

Second, secondary data provide useful information, and this study examines FINIs' investments based on the data on a yearly basis. These data structures, however, may fall short of further identifying or controlling for the degree to which the frequency of such investments may vary or the dynamics of FINIs' investments during a year.

Finally, the present study includes only firms in Taiwan. Thus, the generalizability of the findings from this research to other emerging economies requires further evidence. Future studies may extend the research scope to other economies in order to validate the present findings.

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