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## China Journal of Accounting Research

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# The impact of accounting standards convergence on Chinese firms' overseas mergers and acquisitions



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## ARTICLE INFO

*Article history:*

Received 15 November 2017

Accepted 17 May 2019

Available online 4 June 2019

*Keywords:*

Accounting standards convergence

Overseas mergers and acquisitions

Comparability of accounting information

## ABSTRACT

This paper investigates how accounting standards (AS) convergence influences Chinese firms' overseas mergers and acquisitions (M&As) and shows that this convergence significantly promotes Chinese firms' overseas M&As. Specifically, we find that both the probability of success and the value of transactions increases significantly in countries that implemented International Financial Reporting Standards (IFRS) prior to 2007. These results suggest that accounting standards (AS) convergence can improve the comparability of accounting information between China and other countries that have adopted IFRS. Moreover, we find that the impact of accounting standards (AS) convergence on state-owned enterprise (SOE) acquirers is weak. These findings demonstrate that accounting standards (AS) convergence can facilitate Chinese firms' overseas M&As by improving the comparability of accounting information between China and target countries.

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## 1. Introduction

The number of overseas mergers and acquisitions (M&As) made by Chinese enterprises has grown rapidly. M&A has become one of the main avenues of foreign direct investment (FDI) in the country, and it has received considerable attention from the government. The *2011 Review and Prospects on Mergers and Acquisitions by Chinese Enterprises* released by PricewaterhouseCoopers shows that Chinese enterprises' overseas M&As have maintained strong momentum, with the number of transactions reaching a record-setting 207,

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a year-over-year growth of 10%, and the total value of transactions reaching USD42.9 billion, a year-over-year growth of 12%. The *Yellow Book of World Economy* released by the Chinese Academy of Social Sciences in 2011 also shows that Chinese enterprises, as the acquiring parties, rank second globally in terms of the number of transactions in M&As, gradually shifting from the role of the acquired parties in the past to acquiring parties. To alleviate the pressure of renminbi appreciation, secure energy supplies, and upgrade industries, the Chinese government encourages eligible enterprises to develop overseas investments. The report of the 17th National Congress of the Communist Party of China clearly proposes a “go global” strategy, which has become an important part of the national strategy and national policy for long-term development.

Owing to the continuous growth in overseas M&As, the literature investigates numerous factors that affect the success of overseas M&As and the performance of companies post-M&A, such as institutional and socio-cultural factors, industrial and company factors, and transaction details and management style. Today, over a hundred countries and regions have converged their standards with International Financial Reporting Standards (IFRS). However, the literature on the effects of accounting standards (AS) convergence on corporate overseas M&As is limited.

Overseas M&As are different from domestic M&As in that in overseas M&As, cultural differences can lead to different business models and management styles. Moreover, differences in financial “languages” can hinder transactions between both parties, leading to an increase in transaction costs. Accounting, which is often known as the language of business, is the main source of financial information in M&A transactions. Accounting information that is prepared and disclosed in line with different accounting standards isolates both parties in an M&A, which makes it increasingly difficult for the acquiring party to assess the target party in the M&A transaction. Accounting standards (AS) convergence has undoubtedly unified the financial “language” between both parties in an M&A, thereby enhancing the usefulness of financial information, reducing information asymmetry, and ensuring that the investor is able to identify the differences between the two economies. In this paper, we study the effect of accounting standards on Chinese enterprises’ overseas M&A by investigating the influence of accounting standards (AS) convergence on their success rates and transaction volumes. China’s accounting standards are continuously converging with international financial reporting standards, which has increased the consistency between corporate reports from China and those from IFRS-compliant countries. Accounting standards (AS) convergence facilitates Chinese enterprises’ overseas M&As and is consistent with the national “go global” strategy. The study’s empirical results show that accounting standards (AS) convergence has increased the comparability of accounting information between Chinese enterprises and overseas enterprises, reduced the information asymmetry for Chinese enterprises in overseas M&As, and increased the probability of success and the scale of transactions of Chinese enterprises’ overseas M&As. Further result has found this to be more significant in private enterprises that are sensitive to transaction costs.

This study makes three contributions. First, it expands the literature on the network externalities of international financial reporting standards. Studies mainly find that the network externalities of international financial reporting standards have a positive effect on investments in the securities market (Defond et al., 2011; Yu, 2010; Florou and Pope, 2012) and that the empirical evidence mainly focuses on changes in the accounting standards of European countries in 2005. Studies on accounting standards (AS) convergence in China, however, focus on the new accounting standards in terms of companies’ decisions, compensation contracts at the management level, analysts’ earnings forecasts, and other factors (Wang et al., 2009; Hou and Jin, 2010) without considering the economic consequences of accounting standards (AS) convergence in the M&A market. The objective of this paper is to examine the accounting standards (AS) convergence effect via Chinese enterprises’ overseas M&As. Accounting standards (AS) convergence can significantly increase the success rates and transaction volumes of Chinese enterprises’ overseas M&As by supplementing the network externalities theory on international financial reporting standards with empirical evidence from the overseas M&A market.

Second, this study expands the literature on the factors influencing overseas M&As. According to the literature, the factors affecting overseas M&As are mainly (1) macrolevel factors such as geographic location, cultural gap, property rights protection systems, the exchange rates and tax rates of the two countries, and trade relations between the two countries; and (2) microlevel factors such as M&A experience, extent of industry matching, and the hiring of professional consultants (Rossi and Volpin, 2004; Erel et al., 2012; Zhang et al., 2010). From the perspective of the language of business (accounting standards), this paper explores

the effect of the comparability of accounting information on Chinese enterprises' overseas M&As and expands the literature on the factors that influence overseas M&As.

Finally, this paper's conclusions can serve as a reference for the creators of accounting standards and corporate investment decision-makers. M&As are important corporate investment decisions. Overseas M&As can provide Chinese enterprises with foreign natural resources, advanced management experience, and research and development technology. This paper determines the influence of information costs on the success or failure and efficiency of overseas M&As. With regard to selecting the objectives of M&As and executing these M&A, international financial reporting standards can serve as a decision variable that can reduce information asymmetry for Chinese enterprises in overseas M&As. In future, such empirical evidence will provide a decision-making reference for the creators of accounting standards, which can be significant in the formulation of future Chinese accounting standards.

The remainder of this paper is structured as follows: Section II presents the literature review and research hypotheses, Section III presents the data and modeling, Section IV presents the empirical tests and results analysis, Section V presents further tests and sensitivity analysis, and Section VI presents the conclusions and findings.

## 2. Literature review and research hypotheses

### 2.1. Influencing factors of overseas M&As

Rossi and Volpin (2004) studied the determinants of overseas M&As relatively early and believed that acquiring parties often hail from countries with stronger investor protection institutions and have higher financial reporting quality. Based on prior research, Erel et al. (2012) mainly focused on the effect of value factors on M&As and noted that while acquiring parties usually hail from countries that experience stock market appreciation, national currency appreciation, and relatively high price-to-book ratios, acquired parties hail from countries that experience comparatively poor value factor performance.

Hu and Yu (2003) studied the entry modes of Chinese enterprises' in foreign markets and pointed out that when the strategic value of domestic assets is sufficiently high, there is a greater chance of overseas M&As taking place. Deng (2009) explained the strategic assets of Chinese enterprises' overseas M&As from an institutional perspective. Rui and Yip (2008) also explored the motives of Chinese enterprises in overseas M&As and pointed out that Chinese enterprises carry out overseas M&As to mainly acquire strategic assets that can enhance their competitive advantage or to offset shortcomings in their ownership structure to ensure that local operations are subjected to less policy intervention.

In their empirical study, Zhang et al. (2010) examined the factors that affect the success rates of overseas M&As, from a macro and micro perspective, using 1324 overseas M&A transactions by Chinese enterprises. The trade intensity between countries and the interference of political forces in the M&As of sensitive industries could affect the success rates of overseas M&As. The ownership structures of both parties, the acquiring party's overseas M&A experience, and M&A intermediaries could all affect the success rates of overseas M&As. In addition, Zhang and Zhou (2012) found that the state ownership structure of the acquiring party has a significantly negative effect on the success rate of M&As from an institutional perspective, and this effect is exacerbated if the acquired party's country has a high degree of marketization and a democratically elected government.

### 2.2. International financial reporting standards and the comparability of accounting information

The comparability of accounting information is one of the features of accounting information quality. Europe was the first to adopt international financial reporting standards in 2005, and the rest of the world gradually followed suit. Proponents of the mandatory implementation of International Financial Reporting Standards (IFRS) believed that following unified accounting standards in European countries improved the comparability of financial reports (Bielstein et al., 2007). The International Accounting Standards Board (IASB) promoted international financial reporting standards to mainly enhance the comparability of accounting information across countries, thereby improving the overall quality of financial reports. Unified

accounting standards can lower information barriers between countries, thereby promoting international capital flow. All subsequent studies directly or indirectly confirmed that the implementation of international financial reporting standards can enhance the comparability of accounting information.

Armstrong et al. (2010) found that the stock markets in European Union (EU) countries reacted positively to the announcement of the mandatory implementation of international financial reporting standards in 2005, but the study did not specify whether they did so because they expected enhanced comparability or an improvement in information quality. Daske et al. (2008) studied the economic consequences of the capital markets of 26 countries that were proponents of the mandatory implementation of international financial reporting standards and found that these capital markets experienced significantly enhanced liquidities and corporate values, which were partially caused by the increased comparability of accounting standards. Li (2010) studied the reduction in capital costs for companies in the EU after their mandatory implementation of international financial reporting standards and attributed the results to an increased comparability of accounting standards. Horton et al. (2013) also found that, following the mandatory implementation of IFRS, the accuracy of analysts' forecasts increased significantly, which was due to enhanced accounting comparability.

The above literature indirectly corroborates that implementing international financial reporting standards leads to increased comparability. De Franco et al. (2011) provided direct evidence of the comparability of accounting information and its benefits to information users. Comparability of accounting information increases the total volume and quality of corporate information and reduces analysts' information acquisition costs. In this study, comparability correlated positively with the number of analysts and the accuracy of analysts' forecasts and negatively with the degree of dispersion in analysts' earnings forecasts. Closely following this study, Yip and Young (2012) used the model of De Franco et al. (2011) to investigate the economic consequences of implementing international financial reporting standards in 17 European countries; according to their study, accounting standards (AS) convergence and improved accounting information quality can increase the comparability of information, which is affected by the institutional environment of the country wherein the enterprise is located.

However, some scholars believed that implementing international financial reporting standards may not necessarily lead to the increased comparability of accounting information. The principle behind IFRS is providing guidance in the implementation of accounting standards, which could still lead to false reporting (Ahmed et al., 2013; Capkun et al., 2012). The mandatory implementation of IFRS brings about increased comparability and improved quality of information disclosure. However, these benefits could be offset by a lower IFRS implementation quality. (Ball et al., 2003; Holthausen and Watts, 2000).

Recently, scholars in China have paid close attention to the effects of the new standards on accounting information features and their economic consequences. Xue et al. (2008) studied the value relevance of accounting information using the new and old accounting standards and found that information on accounting earnings and net assets is more value-relevant under the new accounting standards. Mao and Dai (2009) studied changes in the robustness of earnings of listed companies caused by their implementation of the new accounting standards and found that the new accounting standards weakened the principle of robustness and expanded the use of fair value, which increased the level of corporate earnings management. According to Jin (2010), the new accounting standards increased the understandability of the accounting information, thereby decreasing the effect of private information on stock price synchronicity. Studies on the economic consequences of the new accounting standards were carried out in terms of the companies' decisions, compensation contracts at the management level, and analysts' earnings forecasts. Hou and Jin (2010) studied the effect of the new accounting standards on the compensation of senior executives and found that implementing these standards made senior executives sensitive to corporate accounting performance and especially to normal accruals. However, there are very few studies in China on the effect of the new accounting standards on Chinese companies' overseas M&A performance.

### 2.3. Accounting standards and overseas M&As

The literature on the effect of accounting standards on overseas M&As is very relevant to this paper. Studies show that the quality of accounting information disclosure and the comparability of accounting information can promote the flow of capital in different markets and reduce the degree of information asymmetry

(Young and Guenther, 2003; Bradshaw et al., 2004). Ball (2006) and Choi and Meek (2005) found that the implementation of IFRS can increase the comparability of accounting information across countries, increase the transparency of financial reports, reduce information costs, and decrease information asymmetry, thereby enhancing market liquidity, competitiveness, and efficiency. Ahearne et al. (2004) stated that home bias is an important consequence of information asymmetry, as U.S. fund investors prefer to hold stocks of U.S.-listed overseas companies. Leuz et al. (2009) believed that foreign investors prefer investing in countries that provide high-quality information disclosure because the local investors in these countries are less informed about insider information. Using data from the U.S. markets, Covrig et al. (2007) found that shareholders' funds of companies that voluntarily implemented international financial reporting standards were high. Khurana and Michas (2011) corroborated this viewpoint and found that the higher the execution quality of international financial reporting standards, the lower the home bias is.

The effect of IFRS implementation on overseas investment decisions has two aspects. First, the IFRS requirement of greater information disclosure makes the information environment of international investment markets more transparent (Barth et al., 2008). Second, the comparability of accounting information across countries is greater because of their adoption of international financial reporting standards, even in the absence of greater information disclosure (Bradshaw et al., 2004; DeFond et al., 2011). Scholars have studied the investments of institutional investors in IFRS-compliant countries. For example, Yu (2010) studied 39 countries (before and after their implementation of international financial reporting standards) and found that their implementation of IFRS led to an increase in the proportion of mutual fund holdings, and the greater the differences between the original standards and the new accounting standards, the higher the returns were. Defond et al. (2011) studied 14 European countries and concluded that their mandatory implementation of international financial reporting standards led to a substantial increase in the comparability of accounting information, thereby leading to increased overseas investments in the mutual funds of these countries during the implementation period.

Compared to professional investors, who are mainly institutional investors and fund managers, FDI is more sensitive to information than foreign portfolio investment (FPI) (Goldstein and Razin, 2006). The investment period of FPI is short, the transaction volume is small, and divestment can be done at any time; the investment period of FDI is long and divestment is not easy, which is similar to operational investment; therefore, FDI is more easily affected by political risks. The literature on M&As mostly focused on the effect of the information environment on transnational M&As. For example, Francis et al. (2016) used the transnational M&As data from 1998 to 2004 to examine the effect of the similarity in the accounting standards of different countries on the number of M&As and the volume of M&A transactions prior to implementing IFRS. The higher the similarity between the standards of two countries, the greater the frequency of M&A transactions and transaction volumes was. The implementation of international financial reporting standards has increased the number of overseas M&As between EU countries and the transaction premiums; this enhancement is more obvious in countries in which the new standards are considerably different from the old ones.

Apart from using accounting information, some studies investigated this issue using enterprise ownership forms and national image. For example, Li et al. (2017) studied U.S. companies and found that if the acquiring party is a foreign state-owned enterprise, the probability of M&A success may not be reduced significantly, but the duration for completing the deal is much longer. He and Zhang (2018) found that emerging economies are affected by national image during overseas M&As, and a negative national image could reduce the probability of overseas M&A success.

#### 2.4. Research hypotheses

Ramanna and Sletten (2014) found that the network effect is an important determinant in a country's choice to implement international financial reporting standards. They pointed out that as more countries with economic ties to a given country adopt international financial reporting standards, the network benefits of the accounting standards could reduce the information costs of that country with other countries. The network externalities of accounting standards (AS) convergence refer to a set of unified accounting standards that can enhance the degree of comparability of accounting information across all member nations, thereby



reducing the perceived trade costs of member nations. The financial and accounting comparability brought about by accounting standards (AS) convergence has also been confirmed by numerous scholars. For example, [De Franco et al. \(2011\)](#) confirmed that the comparability of financial reports can reduce investors' information acquisition costs and increase the volume and quality of information obtained by them. [Yip and Young \(2012\)](#) found that the mandatory implementation of international financial reporting standards in EU countries increases the comparability of accounting information and that such comparability is affected by the international institutional environment.

Overseas M&As lead to a redistribution of the corporate right of control. Factors such as information asymmetry could hinder the effective transfer of the right of control, thereby affecting the success or failure of M&As. Relative to the acquired party, the foreign investor has an information disadvantage. Accounting information is an important component of a country's capital market information environment. Differences in the accounting standards of different countries require the foreign investor to process the accounting information before interpreting it, thereby increasing the cost of information processing.

Chinese enterprises have been implementing new accounting standards since 2007, with the aim of converging Chinese accounting standards with international financial reporting standards. China's implementation of international financial reporting standards has increased the comparability between its accounting information and that of other IFRS-compliant countries. Greater comparability makes it easier for Chinese investors to analyze and evaluate the accounting information of companies from IFRS-compliant countries in overseas M&As. Information transmission costs and processing costs are important components of transaction costs; therefore, the network externalities of accounting standards (AS) convergence have reduced the transaction costs between China and IFRS-compliant countries. The comparability and understandability of the accounting information of the acquired party play a crucial role in the acquiring party's evaluation of the acquired party's assets and in the valuation of the M&A, which affects the success or failure of the M&A.

The success or failure of an M&A depends on whether both parties in the transaction have a consistent understanding of the quality and risks of the assets being merged, which is specifically manifested in the ability of both parties to reach a consensus in terms of valuable consideration and payment guarantee. As mentioned above, the network externalities of accounting standards (AS) convergence refer to a set of unified accounting standards that can enhance the degree of comparability of the accounting information of all member nations, thereby reducing their perceived trade costs. [Cascino and Gassen \(2015\)](#) found that after the implementation of international financial reporting standards, in addition to achieving an increase in the comparability of goodwill, the differences in balance sheet items also decreased. As China had not adopted international financial reporting standards prior to 2007, Chinese enterprises participating in overseas M&As were forced to pay financial report conversion costs, which increased the expected payment of both parties.

In 2007, new corporate accounting standards were first implemented in China's listed companies and large state-owned enterprises, and other enterprises followed suit. Since then, China's accounting standards have gradually converged with international financial reporting standards. [Louis and Urcan \(2014\)](#) found that overseas M&A activities are more prevalent in IFRS-compliant countries on a mandatory basis, rather than on a voluntary basis. Upon investigating the effect of accounting standard differences on overseas M&As, [Francis et al. \(2016\)](#) found that the transnational M&A transaction volumes are greater among enterprises with similar accounting standards and that their M&A premiums are also relatively high. Adopting the same set of accounting standards as those of the acquired enterprise can lower the costs of information collection and information processing for Chinese companies in overseas M&As, promote the recognition of corporate quality by both parties in the transaction, facilitate easy consensus on valuable consideration, and increase the competition of the acquiring party. This prompts the likelihood of deal completion in overseas M&As and increase their transaction volumes. Hypothesis 1 is thus proposed:

**Hypothesis 1.** Accounting standards (AS) convergence can increase Chinese enterprises' success rates and transaction volumes in the M&As of enterprises in IFRS-compliant countries.

[Rui and Yip \(2008\)](#) divided Chinese enterprises' overseas M&As into four categories. The first category includes extra-large, state-owned, energy-type enterprises such as Sinopec and PetroChina. They mainly carry out M&As to obtain foreign national resources, irrespective of the costs incurred. The second category includes state-owned enterprises such as Nanjing Telecom that respond to the government's "go global"

strategy. These enterprises also use M&A opportunities to carry out strategic transformation. The third category includes large or small-to-medium listed companies that carry out overseas M&As for strategic purposes and for maximizing shareholder value. The fourth category includes large, medium, and small private enterprises that carry out overseas M&A to enhance their competitiveness and to achieve their strategic objectives.

From the above classifications, the motives of state-owned enterprises and private enterprises in carrying out overseas M&As are completely different. State-owned enterprises are resource-driven. Especially in China, some state-owned enterprises' objectives are often similar to the strategic policy objectives of the central or local governments, such as acquiring natural resources overseas. Although it is relatively easy for state-owned enterprises to raise funds for their M&As via the capital market, they continue to receive financial support from the government. Therefore, the overseas M&As of state-owned enterprises are relatively less sensitive to cost. Private enterprises carry out overseas M&As for corporate business development. These enterprises comprehensively evaluate the acquired company to fully consider the ensuing economic consequences and to avoid any losses that may incur. As the investment opportunities of financially constrained private enterprises are limited, they are more careful about overseas M&As. Accounting standards (AS) convergence reduces the information asymmetry between the Chinese and foreign enterprises and enables them to make more efficient M&A decisions, which is more obvious in private enterprises. Therefore, Hypothesis 2 is proposed:

**Hypothesis 2.** Accounting standards (AS) convergence has a more significant promoting effect on the overseas M&As of private enterprises.

### 3. Research design

#### 3.1. Sample selection and data sources

In this paper, the overseas M&A events of Chinese enterprises from January 2002 to December 2016 are used as the initial sample. These samples are taken from the Thomson Reuters global M&A database (a securities data company) and are supplemented with overseas investment data from the China Research Data Services Platform. For our sample, we select the overseas M&A transactions wherein the acquiring enterprises are from mainland China and the target companies are from other countries or regions. As the effect of the increase in comparability post accounting standards (AS) convergence on the success or failure and efficiency of overseas M&As is being studied, this paper focuses only on the significant changes in M&A activities by Chinese enterprises before and after 2007 in countries that have already implemented IFRS. We exclude Chinese enterprises' M&A activities in target countries that implemented IFRS after 2007. The data on implementing international financial reporting standards in various countries have been obtained manually. The data were taken from the briefing on implementing international financial reporting standards (International Accounting Standards Plus, IAS Plus) released by Deloitte & Touche and the International Accounting Standards Committee's annual summary on implementing accounting standards across countries. The information about the nature of acquiring enterprises is collected via multiple channels such as the company websites, annual reports, and the exchanges. To control for the effect of potential extreme values, this study winsorizes all continuous control variables at the 1% and 99% levels.

Panel A of [Table 1](#) reports the distribution of the target countries and regions in Chinese companies' overseas M&As and the number of M&A transactions actually completed. In terms of regional distribution, the top three regions/countries that Chinese enterprises have overseas M&A intentions with are Hong Kong (24.37%), the United States (15.21%), and Australia (11.01%); the sum of the M&As in these three regions/countries exceeds 50% of the total number of M&As. Panel B of [Table 1](#) reports the distribution of Chinese enterprises' overseas M&As in line with the nature of property rights of the acquiring party. The number of overseas M&As by private enterprises from 2002 to 2016 (1743 cases) exceeds the number of overseas M&As by state-owned enterprises (900 cases), thereby becoming a predominant driver in the overseas M&A activities of Chinese enterprises. The success rate of private companies' overseas M&As (65%) is higher than that of state-owned enterprises' overseas M&As (58.33%). In terms of the value factors of M&As, while the average value of state-owned enterprises' overseas M&As is USD320 million, the average value of private enterprises'

Table 1  
Distribution of Chinese enterprises' overseas M&As from 2002 to 2016.

Country/Region	M&A intention		Number of M&A transactions actually completed		Success rate (%)	Number of transactions (millions of USD)	Average value of transactions (millions of USD)
	Number of cases	Proportion of all transactions (%)	Number of cases	Proportion of successful transactions (%)			
<i>Panel A: M&amp;A statistics by region</i>							
Hong Kong	644	24.37%	376	22.68%	58.39%	34,776.19	92.49
The United States	402	15.21%	269	16.22%	66.92%	75,078.10	279.10
Australia	291	11.01%	178	10.74%	61.17%	26,999.30	151.68
Singapore	115	4.35%	67	3.98%	58.26%	4546.53	67.86
Canada	109	4.12%	70	4.22%	64.22%	18,441.40	263.43
Japan	86	3.25%	65	3.92%	75.58%	4548.90	69.98
Germany	98	3.71%	66	3.98%	67.35%	5346.35	81.01
The United Kingdom	89	3.37%	59	3.56%	66.29%	17,548.89	297.44
The British Virgin Islands	50	1.89%	42	2.53%	84.00%	1234.61	29.40
France	51	1.93%	36	2.17%	70.59%	7605.87	211.27
Indonesia	31	1.17%	21	1.27%	67.74%	2663.95	126.85
Thailand	24	0.91%	10	0.60%	41.67%	569.73	56.97
The Netherlands	40	1.51%	26	1.57%	65.00%	5984.95	230.19
Taiwan	33	1.25%	22	1.33%	66.67%	163.90	7.45
Italy	57	2.16%	38	2.29%	66.67%	13,760.28	362.11
South Korea	38	1.44%	25	1.51%	65.79%	2562.49	102.50
Mongolia	23	0.87%	12	0.72%	52.17%	175.30	14.61
Malaysia	25	0.95%	16	0.97%	64.00%	2486.99	155.44
Kazakhstan	22	0.83%	10	0.60%	45.45%	4869.64	486.96
Vietnam	18	0.68%	10	0.60%	55.56%	27.70	2.77
South Africa	25	0.95%	12	0.72%	48.00%	9248.79	770.73
Russia	12	0.45%	4	0.24%	33.33%	3901.00	975.25
Others	360	13.62%	224	13.51%	62.22%	57,909.99	258.53
Total	2643	100.00%	1658	100.00%	62.73%	300,450.50	181.21
	M&A intention	Number of completed transactions		Success rate (%)	Number of transactions (millions of USD)	Average value of transactions (millions of USD)	
<i>Panel B: Classification of the nature of the property rights of the acquiring party</i>							
State-owned enterprises	900		525	58.33%		166,713.25	317.55
Private enterprises	1743		1133	65.00%		133,737.26	118.04
Total	2643		1658	62.73%		300,450.50	181.21



overseas M&As is only USD120 million; compared with private enterprises, the number of M&A cases of state-owned enterprises is often higher, which has a bearing on the type of industry and funds allotted by state-owned and private enterprises in M&A transactions. The overseas M&As of state-owned enterprises often focus on securing large energy supplies and resources, and the scale of these M&As is far larger than that of private enterprises.

### 3.2. Research model and variable definitions

The model of Francis et al. (2016) is used to examine the effect of accounting standards (AS) convergence on Chinese enterprises' M&As, and the following regression model is established:

$$Ma = \alpha_0 + \beta_1 IFRS + \beta_2 IFRSAdopter + \beta_3 IFRS * IFRSAdopter + \beta_4 SOE + \beta_5 Adv + \beta_6 AcqExp + \beta_7 HightecInd + \beta_8 Regulated + \beta_9 Match + \lambda Industry + \varepsilon \quad (1)$$

$$Ln\_ValueofTran = \alpha_0 + \beta_1 IFRS + \beta_2 IFRSAdopter + \beta_3 IFRS * IFRSAdopter + \beta_4 SOE + \beta_5 Adv + \beta_6 AcqExp + \beta_7 HightecInd + \beta_8 Regulated + \beta_9 Match + \lambda Industry + \varepsilon \quad (2)$$

wherein Model (1) is a Logit model and Model (2) is a Tobit model.

The definitions of the various variables in this paper are as follows:

#### a. Dependent variables

*Ma* is a dummy variable denoting the success or failure of Chinese enterprises' overseas M&As. If the overseas M&A by a Chinese enterprise is successful, it takes the value of 1, and otherwise 0. We consider the Securities Data Company (SDC) database samples wherein M&As are completed as successful M&A samples and those wherein M&As are withdrawn as failed M&A samples. The samples wherein M&As are intended are denoted by W, and those wherein the M&A status is unknown are excluded. We also exclude samples with "pending" status, as we cannot determine whether an M&A is successful within one year of the initiation of the M&A. We consider samples that are still "pending" one year after the initiation of the M&A as failed M&A samples.

*ValueofTran* denotes the number of M&A transactions, which is expressed in millions of USD. In successful M&A cases, *ValueofTran* is the actual number of M&A transactions, and in failed M&A cases, *ValueofTran* is 0. *ValueofTran* is a continuous variable limited at one end. In our model, we take the logarithmic value of *ValueofTran* to increase the smoothness of the data, which is denoted by *Ln\_ValueofTran*.

#### b. Explanatory variables

In this paper, *IFRS* serves as accounting standards (AS) convergence measurement index. China has been converging its accounting standards with international financial reporting standards since 2007; therefore, if an M&A transaction occurred after 2007, *IFRS* is 1, and 0 otherwise.

*IFRSAdopter* is a dummy variable that represents a target country's adoption of international financial reporting standards (*IFRS*) before China. If the target country had already adopted *IFRS* prior to 2007, *IFRSAdopter* is 1, and 0 otherwise. To make the samples cleaner, we exclude the countries that have implemented *IFRS* after 2007. Therefore, *IFRSAdopter* = 0 represents the countries that did not implement international financial reporting standards during our sample period.

The financial reports of unlisted companies are not publicly disclosed. Therefore, we can neither accurately judge whether the sampled Chinese companies adopted the new accounting standards in 2007, nor can we accurately establish the time of adoption of the international financial reporting standards by each overseas enterprise. The current research design is only accurate at the national level and not at the corporate level, which is a limitation of this paper.

### c. Control variables

*SOE* is a dummy variable denoting the nature of an enterprise's property rights. If the acquiring party is a state-owned enterprise, then *SOE* is 1, and 0 otherwise. Owing to the special nature of their property rights, state-owned enterprises are more prone to administrative intervention from the acquired party's national government, particularly in countries with strong property rights protection systems (Zhang et al., 2010).

*Adv* denotes the hiring of a professional intermediary organization in an M&A transaction. If either party in the M&A hires an intermediary organization, then *Adv* is 1, and 0 otherwise. Particularly in overseas M&A transactions, wherein both parties in the M&A face a high degree of information asymmetry and the intermediary organization is more familiar with the laws and financial accounting systems of the acquired party's country, the degree of information asymmetry undoubtedly reduces, thereby promoting overseas M&As and their success.

*AcqExp* denotes the success of a Chinese enterprise's overseas M&As. If the enterprise experienced prior success in its overseas M&As, then *AcqExp* is 1, and 0 otherwise. The enterprise experiencing prior success in its overseas M&As can use this experience in subsequent M&A activities. Vermeulen and Barkema (2011) found that if an enterprise is experienced in negotiating with the overseas M&A target and the government of its host country, it can better screen the valuable M&A targets, become familiar with international rules, and better integrate overseas enterprises.

*HightecInd* is a dummy variable denoting whether the target firm belongs to a high-tech industry. According to Louis and Urcan (2014), the industries of the target companies of M&As are classified. In this paper, companies that belong to industries with Standard Industrial Classification (SIC) codes in medicinal chemicals and botanical products (2833–2836); computers and office equipment (3570–3577); electronic and other electrical equipment (3600–3647); measurement, analysis, and control equipment (3812–3845); computer programming and data processing (7371–7379); and research and development testing services (8731–8734) are classified as high-tech companies. If the merged party belongs to the aforementioned industries, *HightecInd* is 1, and 0 otherwise. Deng (2009) believed that Chinese enterprises that carry out overseas M&As are strongly motivated to acquire advanced technology. However, differences in technical expertise between both parties in an M&A may hinder its smooth progress. At the same time, high-tech industries may have group interests or national security issues and are therefore affected by noneconomic factors.

*Regulated* is a dummy variable denoting whether the target firm belongs to a regulated industry. According to Louis and Urcan (2014), if the acquired party's SIC is in public utilities (4000–4999) or in finance (6000–6999), *Regulated* is 1, and 0 otherwise. The M&A of regulated industries may face stricter review by the acquired party's host country, thereby affecting the smooth progress of the M&A.

*Match* denotes whether the M&A takes place within the same industry. If the first four digits of the SIC for both parties in the M&A are the same, both parties belong to the same industry; then, *Match* is 1, and 0 otherwise. If both the acquiring party and the acquired party belong to different industries, the announcement of an M&A could cause negative market reactions (Flanagan, 1996), which could hinder the completion of the M&A.

*Industry* is a dummy variable that denotes the industry the acquiring party belongs to. The success rates and scale of overseas M&As in different industries are different. To control for the effect of this factor on the conclusion, we manually classify the acquiring party to an industry on the basis of the 22 industries provided by the China Securities Regulatory Commission.

## 4. Empirical test and analysis

### 4.1. Descriptive statistics

Table 2 presents the descriptive statistics of the main variables. Of the 2643 M&A transactions, 1657 are successful, a success rate of 62.7%. The mean value of the M&A transactions is USD169 million, and the value of the largest M&A transaction is as high as USD3.024 billion. The transactions after 2007 account for 84% of the total samples. The proportion of countries that implemented IFRS is 63.4%. Of the 2643 M&A cases, 34% were state-owned enterprises, 18.5% hired professional intermediary organizations as advisors, 33.4% had

Table 2  
Descriptive statistics of the main variables.

	Observed value	Mean	Minimum	Median	Maximum	Standard deviation
<i>Ma</i>	2643	0.627	0	1	1	0.484
<i>ValueofTran</i>	2229	169.087	0	8.230	3024.266	489.688
<i>IFRS</i>	2643	0.837	0	1	1	0.370
<i>IFRSadopter</i>	2643	0.634	0	1	1	0.482
<i>SOE</i>	2643	0.341	0	0	1	0.474
<i>Adv</i>	2643	0.185	0	0	1	0.388
<i>AcqExp</i>	2643	0.334	0	0	1	0.472
<i>HightecInd</i>	2643	0.106	0	0	1	0.308
<i>Regulated</i>	2643	0.192	0	0	1	0.394
<i>Match</i>	2643	0.219	0	0	1	0.414

M&A experience, 10.6% belonged to high-tech industries, 19.2% belonged to regulated industries, and 21.9% belonged to the same industry.

#### 4.2. Univariate analysis of accounting standards (AS) convergence using the success rates and the number of transactions of overseas M&As

After grouping the samples on the basis of the time of occurrence of the M&A and the target's host country, the results are reported in Table 3. The overall success rate of Chinese enterprises' overseas M&As was 65.3% prior to 2007, decreasing to 62.2% after 2007; however, this change is not significant.

M&A success rates in countries that had implemented international financial reporting standards did not decrease after 2007, but increased from 60.6% to 62.7%. M&A success rates in countries that had not implement international financial reporting standards decreased significantly, from 74% prior to 2007 to 61.4% after 2007. According to the descriptive statistics, although the overall success rates of M&A are decreasing, those IFRS-compliant countries are increasing, suggesting that the implementation of new accounting standards increases the comparability of accounting information, thereby reducing transaction costs and promoting the completion of M&A transactions.

The fair value of successful M&A transactions by Chinese enterprises increased after 2007 compared with those before 2007, and the natural logarithm of the fair value increased by 0.672. This increase is more apparent in IFRS-compliant countries. Prior to 2007, the natural logarithm of the M&A value was 1.123, and post 2007, 1.981. The natural logarithm of the M&A value for countries that had not implemented international financial reporting standards also increased by 0.239 after 2007. Statistically speaking, the value of M&A transactions significantly increases in a target country that has implemented international financial reporting standards, suggesting that the new accounting standards increase the comparability of accounting information, which in turn, increases the volume of transactions.

#### 4.3. Analysis of the transaction volumes and success rates of Chinese enterprises' overseas M&As

Table 4 presents the main regression results of this study, wherein the test results based on Hypothesis 1 are listed in Columns (1) and (2), and the explained variable is the dummy variable *Ma* that determines whether

Table 3  
M&A success rates and mean M&A transaction values.

		Post-IFRS adoption	Pre-IFRS adoption	Diff (T-value)
<i>MA</i>	All (N = 2643)	0.622 (N = 2211)	0.653 (N = 432)	-0.030 (-1.20)
	IFRS adopter (N = 1675)	0.627 (N = 1393)	0.606 (N = 282)	0.021 (0.66)
	Other countries (N = 968)	0.614 (N = 818)	0.740 (N = 150)	-0.126*** (-2.96)
<i>Ln_ValueofTran</i>	All (N = 2229)	2.016 (N = 1926)	1.344 (N = 303)	0.672*** (4.78)
	IFRS adopter (N = 1414)	1.981 (N = 1205)	1.123 (N = 209)	0.858*** (5.20)
	Other countries (N = 815)	2.075 (N = 721)	1.836 (N = 94)	0.239 (0.91)

Table 4

Regression results of the effect of accounting standards (AS) convergence on the overseas M&A transaction volumes and success rates of Chinese enterprises.

	(1) <i>Ma</i>	(2) <i>Ma</i>	(3) <i>Ln_ValueofTran</i>	(4) <i>Ln_ValueofTran</i>
<i>IFRS*IFRSAdopter</i>	0.672** (2.45)	0.728** (2.57)	1.175** (2.29)	1.109*** (2.80)
<i>IFRS</i>	-0.583** (-2.37)	-0.589** (-2.22)	0.205 (0.42)	0.189 (0.52)
<i>IFRSAdopter</i>	-0.614* (-1.93)	-0.635** (-1.99)	-1.260*** (-2.67)	-1.147*** (-3.42)
<i>SOE</i>		-0.458*** (-5.02)		-0.331* (-1.910)
<i>Adv</i>		0.638*** (4.87)		2.401*** (11.832)
<i>AcqExp</i>		0.157* (1.96)		0.166 (0.76)
<i>HightecInd</i>		0.411*** (2.66)		-0.289 (-1.36)
<i>Regulated</i>		-0.152 (-1.57)		-0.602*** (-3.178)
<i>Match</i>		0.167 (0.98)		0.147 (0.37)
<i>Constant</i>	1.046*** (3.76)	0.221 (0.51)	0.737* (1.65)	-0.170 (-0.16)
<i>Industry</i>	Control	Control	Control	Control
Pseudo R-squared	0.0028	0.0302	0.0028	0.0208
Observations	2643	2643	2229	2229

Note: Robust z-statistics are reported in parentheses in Columns (1) and (2), robust t-statistics are reported in parentheses in Columns (3) and (4), and cluster analysis is carried out on the target countries. \*\*\*, \*\*, and \* denote that the test is significant at the 1%, 5%, and 10% levels, respectively.

the overseas M&As by Chinese enterprises are successful. In Column (1), the coefficient of the interaction term *IFRS\*IFRSAdopter* is positive and significant at the 5% level. The control variables are added in Column (2), and the coefficient of *IFRS\*IFRSAdopter* is 0.728 and significant at the 5% level. The coefficient of *IFRS* is -0.589 and significant at the 5% level. The sum of the coefficients of *IFRS* and the coefficient of *IFRS\*IFRSAdopter* is positive (-0.589 + 0.728), suggesting that post implementation of IFRS, M&A success rates of Chinese enterprises increase significantly in the target IFRS-compliant countries. The coefficient of *SOE* (the state ownership of the acquiring party) is significantly negative, illustrating that the success rate of state-owned enterprises in overseas M&As is significantly lower than that of private enterprises, which is consistent with Zhang et al. (2010).

The test results based on Hypothesis 1 are listed in Columns (3) and (4), and the explained variable denotes the volume of transactions in overseas M&As. The results indicate that post implementation of the new accounting standards in China, the volume of transactions by Chinese enterprises in target countries that have implemented IFRS (*IFRSAdopter*) increases significantly. The coefficients of the interaction term *IFRS\*IFRSAdopter* in Columns (3) and (4) are 1.175 and 1.109, respectively, and are significant at the 5% and 1% levels; the sum of the coefficients of *IFRS* and *IFRS\*IFRSAdopter* is positive, which verifies Hypothesis 1. In Column (4), the coefficient of *Adv* (intermediary organization during M&A) is also significantly positive, illustrating that the volume of transactions is higher when intermediary organizations are involved in M&As.

#### 4.4. Analysis of the transaction volumes and success rates of overseas M&As by state-owned and private enterprises

Table 5 presents the regression results based on Hypothesis 2. To verify Hypothesis 2, group testing is carried out on the samples in line the nature of the corporate property rights of the acquiring party. From the

Table 5  
Regression results of overseas M&A success rates after the grouping based on the nature of the enterprises.

	<i>Ma</i>		<i>Ma</i>	
	State-owned enterprises (1)	Private enterprises (2)	State-owned enterprises (3)	Private enterprises (4)
<i>IFRS*IFRSAdopter</i>	0.725* (1.85)	0.869*** (2.60)	0.703 (1.60)	0.865** (2.41)
<i>IFRS</i>	-0.438 (-1.24)	-0.945*** (-3.28)	-0.379 (-0.95)	-0.858*** (-2.68)
<i>IFRSAdopter</i>	-0.659* (-1.83)	-0.794** (-1.98)	-0.654* (-1.69)	-0.752* (-1.83)
<i>Adv</i>			0.718*** (5.01)	0.580*** (2.64)
<i>AcqExp</i>			0.051 (0.48)	0.200** (2.18)
<i>HightecInd</i>			-0.267 (-1.16)	0.575*** (3.24)
<i>Regulated</i>			-0.169 (-0.80)	-0.155 (-1.53)
<i>Match</i>			0.108 (0.72)	0.247 (0.93)
<i>Constant</i>	0.731** (2.27)	1.478*** (4.65)	-0.031 (-0.06)	0.130 (0.23)
<i>Industry</i>	Control	Control	Control	Control
Pseudo R-squared	0.0041	0.0046	0.0335	0.0331
Observations	900	1743	900	1743

Note: Z-statistics are reported in parentheses, and cluster analysis is carried out on the target countries. \*\*\*, \*\*, and \* denote that the test is significant at the 1%, 5%, and 10% levels, respectively.

regression results (Columns (3) and (4) of Table 5), when the acquiring party is a state-owned enterprise, the coefficient of the interaction term *IFRS\*IFRSAdopter* is positive but not statistically significant, and when the acquiring party is a private enterprise, the coefficient of the interaction term *IFRS\*IFRSAdopter* is 0.865 and significant at a 1% level. Moreover, the sum of the coefficients of *IFRS* and *IFRS\*IFRSAdopter* is positive, which verifies Hypothesis 2.

According to the regression results (Table 6), when the acquiring party is a state-owned enterprise, the coefficient of the interaction term *IFRS\*IFRSAdopter* is positive but not statistically significant, and when the acquiring party is a private enterprise, the coefficients of the interaction term *IFRS\*IFRSAdopter* are 0.692 and 0.817, which are significant at a 10% level. In addition, the sum of the coefficients of *IFRS* and *IFRS\*IFRSAdopter* is positive. The aforementioned results show that the promoting effect of implementing new accounting standards on the volume of transactions in overseas M&As by Chinese enterprises is affected by the nature of the property rights of the acquiring party. That is, when acquiring parties are state-owned enterprises, their implementation of new accounting standards may not affect the volume of transactions in their overseas M&As, and when acquiring parties are private enterprises, their implementing new accounting standards could significantly increase the volume of transactions in their overseas M&As.

The aforementioned results show that the promoting effect of implementing new accounting standards on the success rate of Chinese enterprises' overseas M&As is affected by the nature of the property rights of the acquiring party. In other words, if the acquiring parties are state-owned enterprises, their implementation of new accounting standards may not affect the success rate of their overseas M&As, and if the acquiring parties are private enterprises, their implementation of new accounting standards could significantly increase the success rate of their overseas M&As. Consistent with the hypotheses, implementing new accounting standards can enhance the comparability of financial information across countries, thereby effectively reducing the cost of information acquisition in M&As. As China's state-owned enterprises' M&A objectives are more in tune with the state's national policy objectives, and they are supported by the state in terms of funds and resources.



Table 6  
Regression results of overseas M&A transaction volumes after the grouping based on the nature of enterprises.

	<i>Ln_ValueofTran</i>		<i>Ln_ValueofTran</i>	
	State-owned enterprises (1)	Private enterprises (2)	State-owned enterprises (3)	Private enterprises (4)
<i>IFRS*IFRSAdopter</i>	0.535 (0.52)	0.692* (1.67)	0.670 (0.70)	0.817* (1.86)
<i>IFRS</i>	2.012** (2.14)	0.114 (0.31)	1.634* (1.86)	-0.098 (-0.27)
<i>IFRSAdopter</i>	-0.813 (-0.83)	-0.723* (-1.68)	-1.044 (-1.23)	-0.723* (-1.80)
<i>Adv</i>			3.398*** (9.17)	1.531*** (6.19)
<i>AcqExp</i>			-0.308 (-0.83)	0.273 (1.20)
<i>HightecInd</i>			-1.307** (-2.52)	-0.072 (-0.35)
<i>Regulated</i>			-0.742 (-1.45)	-0.562*** (-3.43)
<i>Match</i>			0.136 (0.29)	0.177 (0.41)
<i>Constant</i>	-1.064 (-1.16)	0.848** (2.34)	-1.418 (-0.97)	-0.264 (-0.19)
<i>Industry</i>	Control	Control	Control	Control
Pseudo R-squared	0.0043	0.0019	0.0440	0.0142
Observations	749	1,473	749	1,473

Note: Huber–White Sandwich robust t-statistics are reported in parentheses, and cluster analysis is carried out on the target countries. \*\*\*, \*\*, and \* denote that the test is significant at the 1%, 5%, and 10% levels, respectively.

Therefore, overseas M&As by state-owned enterprises are not as sensitive as those of private enterprises to reduced information costs that arise from the implementation of new accounting standards.

## 5. Further testing

### 5.1. Reverification of hypotheses using national-level data

Referring to Francis et al. (2016), national annual-level data is also used to verify this study's hypotheses. The national annual-level data from countries with three or fewer M&A transactions are excluded because when the frequency of M&A transactions, which serves as the dependent variable in the model, is comparatively low, success rates tend to be extremely low or high. A total of 167 samples were obtained from 2002 to 2016 via sample screening.

Unlike corporate-level data, the success rate data of different countries in different years are a continuous variable rather than a dummy variable. Therefore, this study uses a multiple linear regression equation to carry out regression on annual national-level data and heteroscedasticity and autoregression processing. In the model, the effects of the capital market development, economic development, transaction costs, and geographic distance between China and the target country on M&A success rates are controlled for. In more developed capital markets, both information seeking and financing are more convenient and faster, which promotes the capital market development of both parties in the M&A and facilitates M&A transactions. In this paper, the *FDI* and the scale of the capital market (*MKT\_Cap*) of the target country are used as surrogate variables to measure the development status of the local capital market. The economic development of both parties in the M&A could also affect the success rates of the M&A. Erel et al. (2012) found that the exchange and interest rates of the two countries could affect the transaction volumes of M&As. In this paper, gross domestic product per capita (*GDPPC*), *GDPPC* growth rate (*GDPPC\_G*), and the inflation rate (*Inflation*)

are used as surrogate variables and are controlled for. Transaction costs of M&A could also affect M&A transactions. The turnover rate of the stock market (*STK\_TO*) in the host countries of both parties in the M&A serves as the control variable for the transaction costs of M&A activities. Finally, according to Rossi and Volpin (2004), the geographic locations (*Distance*) of both parties in the M&A could affect their M&A transactions. Greater distances between the countries can often lead to the failure of M&As; therefore, both parties' geographic locations are controlled for. The regression model is as follows:

$$\begin{aligned} Ma\_Rate = & \alpha_0 + \beta_1 IFRS + \beta_2 IFRSAdopter + \beta_3 IFRS * IFRSAdopter + \beta_4 FDI + \beta_5 MKT\_Cap \\ & + \beta_6 GDPPC + \beta_7 GDPPC\_G + \beta_8 Inflation + \beta_9 STK\_TO + \beta_{10} Distance + \varepsilon \end{aligned} \quad (3)$$

From the regression results in Column (2) of Table 7, the coefficient of *IFRS* is negative, but not significant. The coefficient of the interaction term *IFRS\*IFRSAdopter* is positive and significant at the 1% level. Moreover, the sum of the coefficients of the *IFRS* and the *IFRS\*IFRSAdopter* ( $-0.113 + 0.230 = 0.117$ ) is positive, suggesting that in cases wherein the target country does not adopt international financial reporting standards, China's implementation of the new accounting standards has no significant effect on the M&A's success rate (the coefficient of the *IFRS* is not significant); in cases wherein the target country does adopt international financial reporting standards, China's implementation of the new accounting standards significantly increases the success rate of its enterprises' overseas M&As. This is consistent with the conclusion obtained from the corporate-level data.

Table 7  
Regression results of the success rates of overseas M&As at the national level.

	<i>Ma_Rate</i> ( <i>Freq</i> > 3) (1)	<i>Ma_Rate</i> ( <i>Freq</i> > 3) (2)
<i>IFRS*IFRSAdopter</i>	0.303*** (3.34)	0.230*** (3.51)
<i>IFRS</i>	-0.274*** (-7.19)	-0.113 (-1.29)
<i>IFRSAdopter</i>	-0.261** (-2.74)	-0.220*** (-2.97)
<i>FDI</i>		-0.024* (-1.85)
<i>MKT_Cap</i>		0.001 (0.06)
<i>GDPPC</i>		0.016** (2.14)
<i>GDPPC_G</i>		-0.006 (-0.05)
<i>Inflation</i>		0.001 (1.28)
<i>STK_TO</i>		-0.003 (-0.09)
<i>Distance</i>		-0.110 (-1.56)
<i>Constant</i>	0.807*** (13.70)	0.619*** (3.14)
R-squared	0.078	0.247
Observations	167	167

Note: Huber–White sandwich robust t-statistics are reported in parentheses. \*\*\*, \*\*, and \* denote that the test is significant at the 1%, 5%, and 10% levels, respectively.

## 5.2. Placebo test

One challenge that we face is that overseas countries/regions adopting or not adopting IFRS is not the result of random selection. After 2007, in the wake of the international financial crisis, Chinese enterprises pursued more acquisitions in developed countries that were more likely to adopt IFRS. Therefore, the results observed in the paper are affected by factors other than the adoption of IFRS by Chinese enterprises after 2007. To eliminate the effect of random events after 2007 on the conclusions of this paper, the placebo test method is adopted. Specifically, the *Event2008* variable is constructed, which is defined as follows: if the M&A transaction occurred after 2008, *Event2008* is 1, and 0 otherwise. This variable has been used because we assume that the increase in the number of overseas M&A is not due to the adoption of international financial reporting standards in 2007 but rather to the events that occurred following the 2008 financial crisis. The following regression model is used for testing:

$$\begin{aligned}
 Ma = & \alpha_0 + \beta_1 IFRS + \beta_2 Event2008 + \beta_3 IFRSAdopter + \beta_4 IFRS * IFRSAdopter + \beta_5 Event2008 \\
 & * IFRSAdopter + \beta_6 SOE + \beta_7 Adv + \beta_8 AcqExp + \beta_9 HightecInd + \beta_{10} Regulated + \beta_{11} Match \\
 & + IIndustry + \varepsilon
 \end{aligned} \tag{4}$$

Table 8  
Regression results of the placebo test.

	(1) <i>Ma</i>	(2) <i>Ln_ValueofTran</i>
<i>IFRS</i>	-0.454 (-1.15)	-0.001 (-0.00)
<i>Event2008</i>	-0.270 (-1.32)	0.109 (0.34)
<i>IFRSAdopter</i>	-0.701** (-2.11)	-1.275*** (-3.88)
<i>IFRS*IFRSAdopter</i>	0.681* (1.68)	1.023** (2.49)
<i>Event2008*IFRSAdopter</i>	0.142 (0.61)	0.256 (0.66)
<i>SOE</i>	-0.470*** (-5.05)	-0.340** (-1.96)
<i>Adv</i>	0.671*** (5.02)	2.436*** (11.74)
<i>AcqExp</i>	0.139* (1.77)	0.161 (0.76)
<i>HightecInd</i>	0.424*** (2.63)	-0.202 (-0.96)
<i>Regulated</i>	-0.176* (-1.80)	-0.562*** (-2.98)
<i>Match</i>	0.156 (0.90)	0.169 (0.42)
<i>Constant</i>	0.359 (0.82)	-0.128 (-0.12)
<i>Industry</i>	Control	Control
Pseudo R-squared	0.0325	0.0213
Observations	2643	2229

Note: Robust z-statistics are reported in parentheses in Columns (1) and (2), robust t-statistics are reported in parentheses in Columns (3) and (4), and cluster analysis is carried out on the target countries. \*\*\*, \*\*, and \* denote that the test is significant at the 1%, 5%, and 10% levels, respectively.

$$\begin{aligned} \text{Ln\_ValueofTran} = & \alpha_0 + \beta_1 \text{IFRS} + \beta_2 \text{Event2008} + \beta_3 \text{IFRSAdopter} + \beta_4 \text{IFRS} * \text{IFRSAdopter} \\ & + \beta_5 \text{Event2008} * \text{IFRSAdopter} + \beta_6 \text{SOE} + \beta_7 \text{Adv} + \beta_8 \text{AcqExp} + \beta_9 \text{HightecInd} \\ & + \beta_{10} \text{Regulated} + \beta_{11} \text{Match} + \text{Industry} + \varepsilon \end{aligned} \quad (5)$$

If the coefficient of *Event2008\*IFRSAdopter* is still significant but the value of the coefficient is smaller than the value of the coefficient of *IFRS\*IFRSAdopter*, or if the coefficient of *Event2008\*IFRSAdopter* is not significant, then only the coefficient of *IFRS\*IFRSAdopter* is significant. In this case, the conclusions of this paper are due to the adoption of new accounting standards; otherwise, they are due to the events following the 2008 financial crisis.

The results in Table 8 show that although the coefficient of *Event2008\*IFRSAdopter* is also positive, it is not significant, which supports the conclusions of this paper to a certain extent.

### 5.3. Retaining the M&A samples of target countries that implemented IFRS after 2007

To verify whether there were significant changes in M&A activities by Chinese enterprises before and after 2007 in the countries that had already implemented international financial reporting standards and to acquire cleaner research samples, the M&A samples of Chinese enterprises in target countries that have implemented IFRS after 2007 are excluded. To a certain extent, defining *IFRSAdopter* according to the specific year of implementation in target countries can also verify the research hypotheses of this paper. For example, if a certain country implemented the accounting standards in 2009, then *IFRSAdopter* is 0 before 2009 and 1 after. In other words, it is a variable that changes over time. Table 9 presents the regression results after *IFRSAdopter* is redefined.

Table 9

Regression results of the effect of accounting standards (AS) convergence on the transaction volume and success rates of Chinese enterprises' overseas M&As.

	(1)	(2)	(3)	(4)
	<i>Ma</i>	<i>Ma</i>	<i>Ln_ValueofTran</i>	<i>Ln_ValueofTran</i>
<i>IFRS*IFRSAdopter</i>	0.529*** (2.61)	0.510** (2.50)	1.279*** (2.74)	1.215*** (2.77)
<i>IFRS</i>	-0.609*** (-3.23)	-0.594*** (-3.03)	-1.103** (-2.17)	-1.100** (-2.21)
<i>IFRSAdopter</i>	-0.194 (-1.15)	-0.183 (-1.02)	-0.397 (-1.28)	-0.380 (-1.24)
<i>SOE</i>		-0.108 (-1.40)		0.352* (1.85)
<i>Adv</i>		0.145 (1.36)		0.819*** (2.77)
<i>AcqExp</i>		0.028 (0.23)		0.648** (2.17)
<i>HightecInd</i>		-0.147 (-0.85)		-0.409 (-1.00)
<i>Regulated</i>		-0.016 (-0.13)		0.049 (0.18)
<i>Match</i>		0.184*** (2.61)		0.367** (2.24)
<i>Constant</i>	0.045 (0.13)	-0.037 (-0.11)	0.156 (0.21)	-0.126 (-0.18)
<i>Industry</i>	Control	Control	Control	Control
Pseudo R-squared	0.0234	0.0253	0.0103	0.0133
Observations	2972	2972	2972	2972

Note: Robust z-statistics are reported in parentheses in Columns (1) and (2), robust t-statistics are reported in parentheses in Columns (3) and (4), and cluster analysis is carried out on the target countries. \*\*\*, \*\*, and \* denote that the test is significant at the 1%, 5%, and 10% levels, respectively.

Table 10  
Regression results of the success rates of overseas M&As after the grouping based on the nature of enterprises.

	<i>Ma</i>		<i>Ln_ValueofTran</i>	
	State-owned enterprise (1)	Private enterprises (1)	State-owned enterprises (3)	Private enterprises (4)
<i>IFRS*IFRSAdopter</i>	0.223 (0.72)	0.679*** (2.94)	0.462 (1.22)	0.620** (2.19)
<i>IFRS</i>	-0.482** (-2.25)	-0.675*** (-2.74)	-0.594* (-1.68)	-0.332 (-1.57)
<i>IFRSAdopter</i>	0.027 (0.10)	-0.319* (-1.68)	-0.054 (-0.19)	-0.228 (-1.00)
<i>Adv</i>	0.159 (0.80)	0.158 (1.22)	0.635* (1.89)	0.578*** (3.43)
<i>AcqExp</i>	0.096 (0.87)	0.016 (0.09)	0.580*** (3.36)	0.366 (1.58)
<i>HightecInd</i>	-0.838*** (-3.30)	0.069 (0.37)	-0.475 (-1.60)	-0.124 (-0.77)
<i>Regulated</i>	-0.069 (-0.35)	-0.008 (-0.05)	0.120 (0.48)	-0.047 (-0.32)
<i>Match</i>	0.197 (1.16)	0.223** (2.57)	0.221 (0.96)	0.107* (1.72)
<i>Constant</i>	-11.553*** (-12.72)	0.109 (0.23)	0.594* (1.68)	1.662*** (3.24)
<i>Industry</i>	control	control	control	control
Pseudo R-squared	0.0367	0.0261	0.0636	0.0523
Observations	961	2011	961	2011

Note: Z-statistics are reported in parentheses, and cluster analysis is carried out on the target countries. \*\*\*, \*\*, and \* denote that the test is significant at the 1%, 5%, and 10% levels, respectively.

The regression results in Table 9 show that regardless of whether the control variables are controlled, the coefficient of the interaction term *IFRS\*IFRSAdopter* is positive and significant at least at a 5% level, suggesting that after implementing the new accounting standards, the M&A success rates and transaction volumes of Chinese enterprises in target countries that implemented international financial reporting standards (*IFRSAdopter*) increased significantly, which also supports Hypothesis 1.

The regression results based on Hypothesis 2 are reported in Table 10. The coefficient of the interaction term *IFRS\*IFRSAdopter* is significantly positive only in the sample group of private enterprises, which supports Hypothesis 2; that is, the promoting effect of accounting standards (AS) convergence is more significant for private enterprises' overseas M&As.

## 6. Conclusions

This study uses China's implementation of the new accounting standards in 2007 to investigate the effect of accounting standards (AS) convergence on the success rates and transaction volumes of Chinese enterprises' overseas M&As. Based on prior research, the effect of international financial reporting standards in reducing the transaction costs of Chinese enterprises in overseas M&As is tested in this paper. The sample is classified according to the nature of property rights of the enterprises. Based on prior analysis, this study hypothesizes that private enterprises are more sensitive to reductions in information costs due to changes in accounting standards. Further analysis is carried out on the samples using national-level data, and the findings confirm the main hypotheses of this paper. The main conclusions of this paper are as follows:

First, accounting standards (AS) convergence increases the comparability of the accounting information of Chinese enterprises with that of IFRS-compliant countries, thus reducing the costs of information processing during Chinese enterprises' overseas M&As, which significantly increases their success rates. Second, implementing new accounting standards leads to an increase in accounting comparability, which can significantly increase the transaction volumes of Chinese enterprises' overseas M&As. Third, unlike private enterprises,



state-owned enterprises are not sensitive to reductions in information costs in M&A transactions because of the increase in comparability. Therefore, despite state-owned enterprises' implementation of the new accounting standards, there were no significant changes in their success rates and transaction volumes in their overseas M&A; however, those of private enterprises increased significantly.

Accounting information plays an important role in overseas M&As. These conclusions serve as a reference for the formulation of Chinese accounting standards and the overseas M&As of Chinese enterprises. Adopting the same accounting standards can reduce the information asymmetry in the transactions of both parties in the M&A. While selecting overseas M&A targets, enterprises can consider evaluating the degree of consistency in accounting standards.

## Acknowledgements

We are grateful for the anonymous reviewers' helpful comments. Shuwei Sun acknowledges financial support from the National Natural Science Foundation of China (No. 71602112) and the Shanghai Educational Development Foundation Morning Project (15CG57). Xianjie He acknowledges financial support from the National Natural Science Foundation of China (Nos. 91746117 and 71572101) and the Ministry of Education (MOE) Key Research Institute of Humanities and Social Sciences at Universities (No. 16JJD790037).

## References

- Ahearne, A., Grier, W., Warnock, F., 2004. Information costs and home bias: an analysis of US holdings of foreign equities. *J. Int. Econ.* 62 (2), 313–336.
- Ahmed, A.S., Neel, M., Wang, D., 2013. Does mandatory adoption of IFRS improve accounting quality? Preliminary evidence. *Contemp. Account. Res.* 30 (4), 1344–1372.
- Armstrong, Christopher S., Barth, Mary E., Jagolinzer, Alan D., Riedl, Edward J., 2010. Market reaction to the adoption of IFRS in Europe. *Account. Rev.* 85 (1), 31–61.
- Ball, R., 2006. International financial reporting standards (IFRS): pros and cons for investors. *Account. Bus. Res. (Special Issue)* 30 (1), 25–27.
- Ball, Ray, Robin, Ashok, Wu, Joanna Shuang, 2003. Incentives versus standards: properties of accounting income in four EAST Asian Countries. *J. Account. Econ.* 36 (1-3), 235–270.
- Barth, M., Landsman, W., Lang, M., 2008. International accounting standards and accounting quality. *J. Account. Res.* 46 (3), 467–498.
- Bielstein, M.T., Munter, P.H., Schinas, W.J., 2007. How the IFRS Movement Will Affect Financial Reporting in the US. KPMG Defining Issues Series.
- Bradshaw, Mark T., Bushee, Brian J., Miller, Gregory S., 2004. Accounting choice, home bias, and US investment in non-US firms. *J. Account. Res.* 42 (5), 795–841.
- Capkun, V., Collins, D., Jeanjean, T., 2012. Does Adoption of IAS/IFRS Deter Earnings Management? Working paper.
- Cascino, C., Gassen, J., 2015. What drives the comparability effect of mandatory IFRS adoption? *Rev. Account. Stud.* 20 (1), 242–282.
- Choi, F.D.S., Meek, G., 2005. *International Accounting*. Prentice Hall, New Jersey.
- Covrig, V., Defond, M., Hung, M., 2007. Home bias, foreign mutual fund holdings, and the voluntary adoption of international accounting standards. *J. Account. Res.* 45 (1), 41–70.
- Daske, Holger, Hail, Luzi, Leuz, Christian, Verdi, Rodrigo, 2008. Mandatory IFRS reporting around the world: early evidence on the economic consequences. *J. Account. Res.* 46 (5), 1085–1142.
- De Franco, G., Kothari, S.P., Verdi, R.S., 2011. The benefits of financial statement comparability. *J. Account. Res.* 49 (4), 895–931.
- DeFond, Mark, Hu, Xuesong, Hung, Mingyi, Li, Siqu, 2011. The impact of mandatory IFRS adoption on foreign mutual fund ownership: the role of comparability. *J. Account. Econ.* 51 (3), 240–258.
- Deng, P., 2009. Why do Chinese firms tend to acquire strategic assets in international expansion? *J. World Bus.* 44 (1), 74–84.
- Erel, I., Liao, R., Weisbach, M., 2012. Determinants of cross-border mergers and acquisitions. *J. Fin.* 67 (3), 1045–1082.
- Flanagan, David J., 1996. Announcements of purely related and purely unrelated mergers and shareholder returns: reconciling the relatedness paradox. *J. Manage.* 22 (6), 823–835.
- Florou, Annita, Pope, Peter F., 2012. Mandatory IFRS adoption and institutional investment decisions. *Account. Rev.* 87 (6), 1993–2025.
- Francis, R., Huang, S., Khurana, I., 2016. The role of similar accounting standards in cross-border mergers and acquisitions. *Contemp. Account. Res.* 33 (3), 1298–1330.
- Goldstein, I., Razin, A., 2006. An information-based tradeoff between foreign direct investment and foreign portfolio investment. *J. Int. Econ.* 70 (1), 271–295.
- He, X., Zhang, J., 2018. Emerging market MNCs' cross-border acquisition completion: institutional image and strategies. *J. Bus. Res.* 93, 139–150.
- Holthausen, N.R., Watts, R., 2000. The relevance of the value relevance literature for financial accounting standard setting. *J. Account. Econ.* 31 (1–3), 3–75.

- Horton, Joanne, Serafeim, George, Serafeim, Ioanna, 2013. Does mandatory IFRS adoption improve the information environment? *Contemp. Account. Res.* 30 (1), 388–423.
- Hou, Qingchuan, Jin, Qinglu, 2010. New Accounting Standards, Corporate Accounting Performance, and Senior Executive Compensation. Working paper (In Chinese).
- Hu, Feng, Yu, Xiaodong, 2003. The choice between cross-border M&A Greenfield investment: an economic analyzing framework. *J. Fin. Econ.* 2, 48–55 (In Chinese).
- Jin, Zhi, 2010. New accounting standard, accounting information quality and stock price synchronicity. *Account. Res.* 7, 19–26 (In Chinese).
- Khurana, I., Michas, P., 2011. Mandatory IFRS adoption and U.S. Home Bias. *Account. Horiz.* 25 (4), 729–753.
- Leuz, Christian, Lins, Karl V., Warnock, Francis E., 2009. Do foreigners invest less in poorly governed firms? *Rev. Financ. Stud.* 23 (3), 3245–3285.
- Li, Siqu, 2010. Does mandatory adoption of international financial reporting standards in the European Union reduce the cost of equity capital? *Account. Rev.* 85 (2), 607–636.
- Li, J., Xia, J., Lin, Z., 2017. Cross-border acquisitions by state-owned firms: how do legitimacy concerns affect the completion and duration of their acquisitions? *Strat. Manage. J.* 38 (9), 1915–1934.
- Louis, Henock, Oktay, Urcan, 2014. The Effect of IFRS on Cross-border Acquisitions. Working Paper. Available at SSRN: <<https://ssrn.com/abstract=2164995>>.
- Mao, Xinsu, Dai, Deming, 2009. A study on earnings conservatism and earnings management based on changes in China's accounting system. *Account. Res.* 12, 38–46 (In Chinese).
- Ramanna, K., Sletten, E., 2014. Network effects in countries' adoption of IFRS. *Account. Rev.* 89 (4), 1517–1543.
- Rossi, Stefano, Volpin, Paolo F., 2004. Cross-country determinants of mergers and acquisitions. *J. Financ. Econ.* 74 (2), 277–304.
- Rui, Huaichuan, Yip, George S., 2008. Foreign acquisitions by Chinese firms: a strategic intent perspective. *J. World Bus.* 43 (2), 213–226.
- Vermeulen, Freek, Barkema, Harry, 2011. Learning through acquisitions. *Acad. Manage. J.* 44 (3), 457–476.
- Wang, Yutao, Xue, Jian, Chen, Xiao, 2009. Accounting choice and earnings management: an analysis on the implementation of the new accounting standard. *China Account. Rev.* 3, 255–270 (In Chinese).
- Xue, Shuang, Zhao, Lixin, Xiao, Zezhong, Cheng, Xulan, 2008. Does international convergence of accounting standards improve the value relevance of accounting information?—A comparative study based on the new and old accounting standards. *Fin. Trade Econ.* 9, 62–67 (In Chinese).
- Yip, Rita W.Y., Young, D., 2012. Does mandatory IFRS adoption improve information comparability? *Account. Rev.* 87 (5), 1767–1789.
- Young, D., Guenther, D., 2003. Financial reporting environments and international capital mobility. *J. Account. Res.* 41 (3), 553–579.
- Yu, G., 2010. Accounting Standards and International Portfolio Holdings: Analysis of Cross-border Holdings following Mandatory Adoption of IFRS. Working Paper.
- Zhang, Jianhong, Zhou, Chaohong, 2012. A study on institutional barriers of chinese companies going global. *Econ. Res. J.* 6, 80–91 (In Chinese).
- Zhang, Jianhong, Wei, Xinjiang, Ebbers, Haico, 2010. The determinants of success and failure of China's overseas acquisitions. *Manage. World* 3, 97–107 (In Chinese).