

THE IMPACT OF INSTITUTIONAL FACTORS AND IFRS
ON THE VALUE RELEVANCE OF ACCOUNTING
INFORMATION: EVIDENCE FROM AH SHARES

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FACULTY OF BUSINESS AND ACCOUNTANCY
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KUALA LUMPUR

2021

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**DISSERTATION SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF ACCOUNTING (REPORTING
AND MANAGEMENT ACCOUNTABILITY)**

**FACULTY OF BUSINESS AND ACCOUNTANCY
UNIVERSITY OF MALAYA
KUALA LUMPUR**

2021

UNIVERSITY OF MALAYA
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Name of Degree: Master of Accounting (Reporting and Management
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The Impact of Institutional Factors and IFRS on the Value Relevance of
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ABSTRACT

The study investigates whether institutional factors affect the value relevance of accounting information of Chinese cross-listed firms during the years 2000 to 2013. It covers the last two sets of China's accounting standards – both the Accounting System for Business Enterprises (ASBE) released in 2001 and the revised version in 2006. Specifically, the study concentrates on whether the IFRS convergence is associated with the incremental improvement on the value relevance of accounting information, and how the institutional factors affect the value relevance of these cross-listed firms. It is now well established from various studies that IFRS convergence would improve the corporate disclosure transparency and significantly enhance the quality of accounting information, especially the value relevance of accounting information. However, in the process of global convergence to IFRS, some studies found that institutional factors play a prominent role in affecting value relevance, particularly in emerging economies. Mainland China is communist and led by a one-party political system, while as an inalienable part of China, Hong Kong retains its financial system, legal system, and possesses its own currency. In this respect, the unique situation of Mainland China and Hong Kong embodies the principle of “one country, two systems” and enables the coexistence of socialism and capitalism in the same country. Therefore, because of these institutional differences, it might be expected that the value relevance of accounting information is different between Mainland China and Hong Kong listed firms. Furthermore, to create a side-by-side comparison, firms with twin listing of A-share and H-share are selected as the study sample. These Chinese cross-listed firms issue A-share can also issue H-share, and they are known as AH- shares. To take a close look at the mean differences in these AH-shares between the pre- and post- IFRS convergence period, the study uses paired sample t-test where the time segment is divided into two equal periods. The result of the study indicates that IFRS convergence could indeed promote higher quality of accounting

information, as the value relevance increases when firms switched from complying with the China GAAP to the IFRS-based accounting standards. Besides, the impact of institutional factors on the value relevance has been proved to be varied between Mainland China and Hong Kong stock market. This result suggests that regions with a strong and sound institutional framework and higher scores of the Worldwide Governance Indicators further support and enhance the neutrality of accounting information. Accordingly, such regions would correspond to a lower interventionist power in the financial reporting system and attract more investments. The study also shows that the IFRS convergence has successfully reduced the information asymmetry among Chinese cross-listed shares. In addition, the result finds that all six institutional factors (voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption) are statistically significant in Mainland China, whereas only two (voice and accountability, regulatory quality) have been confirmed in Hong Kong.

Keywords: Value relevance, IFRS convergence, Institutional factors, AH shares, Accounting information

ABSTRAK

Kajian ini menyelidiki sama ada faktor institusi mempengaruhi kerelevanan nilai maklumat perakaunan bagi firma tersenarai di China bagi tempoh yang bermula dari tahun 2000 hingga 2013. Tempoh ini merangkumi dua set piawaian perakaunan China iaitu Sistem Perakaunan untuk Perniagaan Perniagaan (ASBE) yang digunapakai mulai tahun 2001 serta versi yang piawaian perakaunan yang telah disemak semula pada tahun 2006. Secara khusus, kajian ini menumpukan kajian kepada persoalan apakah penumpuan piawaian perakaunan antarabangsa; IFRS dapat dikaitkan dengan peningkatan penambahbaikan dalam kerelevanan nilai maklumat perakaunan, dan bagaimana faktor institusi mempengaruhi kerelevanan nilai ini di firma-firma tersenarai di China. Hasil kajian semasa menunjukkan bahawa penumpuan piawaian perakaunan antarabangsa IFRS akan meningkatkan ketelusan pendedahan korporat dan kualiti maklumat perakaunan, terutama nilai relevan maklumat perakaunan. Namun, dalam usaha untuk mengubah piawaian perakaunan peringkat nasional ke penggunaan yang melibatkan penumpuan piawaian perakaunan antarabangsa IFRS, beberapa kajian mendapati bahawa faktor institusi memainkan peranan penting dalam mempengaruhi kerelevanan nilai, terutama bagi kuasa ekonomi yang sedang mebangun. Tanah Besar China adalah satu konteks unik di mana wujudnya sistem politik yang berpusat kepada satu aliran, sementara Hong Kong yang tertakluk di bawah pemerintahan China pula mempunyai sistem kewangan, dan perundangan serta memiliki mata kewangannya yang tersendiri. Dalam hal ini, situasi yang dialami oleh Tanah Besar China dan Hong Kong adalah sesuatu yang unik yang mencerminkan prinsip "satu negara, dua sistem". Oleh kerana perbezaan ini, kemungkinan nilai kesesuaian maklumat perakaunan berbeza antara pasaran saham China dan Hong Kong. Lebih-lebih lagi, untuk mencapai perbandingan yang adil antara faktor institusi ini antara pasaran saham China Daratan dan Hong Kong, syarikat dengan penyenaian kembar saham-A dan saham-H dipilih di dalam

penyelidikan ini sebagai sampel kajian. Oleh kerana ciri-ciri unik "satu negara, dua sistem" yang disebutkan sebelumnya, firma-firma yang disenaraikan di China mengeluarkan saham-A juga dapat menerbitkan saham-H, dan mereka dikenali sebagai syarikat-syarikat saham AH. Untuk melihat secara dekat perbezaan purata dalam saham Adan H dari tempoh penumpuan kepada piawaian perakaunan antarabangsa sebelum dan sesudah IFRS, kajian ini menggunakan ujian t sampel berpasangan di mana setiap firma dibahagikan kepada dua jangka masa yang sama panjang. Hasil kajian menunjukkan bahawa maklumat perakaunan sisi saham-A setelah penumpuan IFRS menjadi lebih dekat dengan maklumat di bahagian saham-H, yang membawa maksud kerelevanan nilai maklumat perakaunan di pasaran saham-A telah meningkat ketika beralih ke fasa penggunaan yang melibatkan penumpuan piawaian perakaunan antarabangsa IFRS melalui piawaian perakaunan ASBE 2006. Selain itu, dalam regresi biasa paling sedikit (OLS), kajian mendapati kesan faktor institusi terhadap kerelevanan nilai maklumat perakaunan di pasaran saham Hong Kong terbukti dapat diabaikan jika dibandingkan dengan keputusan kajian yang melibatkan pasaran saham di China. Oleh itu, kajian ini menyimpulkan bahawa wilayah dengan persekitaran institusi yang lebih baik seperti Hong Kong, mempunyai skor indikator tadbir urus seluruh dunia yang lebih tinggi, dan oleh itu, persekitaran ini adalah sesuai dengan kekuatan intervensi yang lebih rendah dalam struktur pelaporan kewangan. Oleh itu, kajian ini merumuskan bahawa penumpuan kepada penggunaan yang melibatkan penumpuan piawaian perakaunan antarabangsa IFRS berjaya mengurangkan ketidakseimbangan dan kesamarataan maklumat yang berkaitan dengan nilai maklumat perakaunan. Walau bagaimanapun, relevansi nilai ini masih dipengaruhi oleh enam faktor institusi iaitu suara dan akauntabiliti, kestabilan politik dan ketiadaan keganasan / keganasan, keberkesanan pemerintah, kualiti peraturan dan kawalan rasuah di pasaran saham China manakala bagi pasaran saham Hong Kong pula ianya dipengaruhi oleh dua factor iaitu suara dan akauntabiliti dan kualiti peraturan..

Kata kunci: Perkaitan nilai, penumpuan IFRS, Faktor institusi, saham AH, Maklumat perakaunan.

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ACKNOWLEDGEMENTS

Completing a master's degree is a truly memorable and thrilling experience. Although it is not a marathon like a PhD study. In fact, it provides me with a sound foundation to pursue my future research study.

I would like to express my sincere thanks and deepest appreciation to my supervisor, Associate Professor. Dr. Ervina Binti Alfian for her brilliant guidance. During my dissertation writing, I received a lot of invaluable advice from her, and the supervisory meetings were of high quality and efficient. Besides, she has provided me with illuminating instructions in every stage of my research study, without her brilliant and patient guidance, the research dissertation would be incomplete.

Along the journey, I met many people who have brightened my days and participated in my study here with excellent cooperation. I am so grateful to all of them. Therefore, I would like to thank all faculty members, staff, and friends of the faculty of business and accountancy, University of Malaya, for their continuous support throughout my study in Malaysia.

Last but not the least, I want to thank my parents and my wife, for their invaluable love and unconditional support during my master's journey. Thank you all.

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LIST OF ABBREVIATIONS

ACCA	:	Association of Chartered Certified Accountants
ASBE	:	Accounting Standards for Business Enterprises
ASEAN	:	Association of Southeast Asian Nations
CAS	:	Chinese Accounting Standards
CICPA	:	The Chinese Institute of Certified Public Accountants
CSMAR	:	China Stock Market & Accounting Research
FASB	:	Financial Accounting Standards Board
GAAP	:	Generally Accepted Accounting Principles
GDP	:	Gross Domestic Product
HKEX	:	Hong Kong Stock Exchange
HKICAP	:	Hong Kong Institute of Certified Public Accountants
HKFRS	:	Hong Kong Financial Reporting Standards
IAS	:	International Accounting Standards
IASB	:	International Accounting Standard Board
IASC	:	International Accounting Standards Committee
ICAEW	:	Institute of Chartered Accountants in England and Wales
IFRS	:	International Financial Reporting Standards
MOF	:	China's Ministry of Finance
NASDAQ	:	National Association of Securities Dealers Automated Quotations
OLS	:	Ordinary Least Squares
SHSE	:	Shang Hai Stock Exchange
SZSE	:	Shen Zhen Stock Exchange
WGI	:	Worldwide Governance Indicators
WTO	:	World Trade Organization

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CHAPTER 1: INTRODUCTION

1.1 Overview

In the past, the Chinese government sought to broaden its impact on the accounting standards-setting process to revitalize a prescriptive uniform accounting system (Zezhong Xiao, Weetman, & Sun, 2004). However, the situation now is that China's national accounting standard-setters and professional accounting bodies elected to converge with the International Financial Reporting Standards (IFRS¹). In this respect, it would be intriguing to examine the factors that affect the success of IFRS convergence.

The difference in accounting standards applied and institutional factors across the globe have resulted in the diversity of accounting practices over the last several decades (Zarzeski, 1996). This diversity can impede economic efficiency by blinding investors to identify profit opportunities and risk premiums in advance. Most scholars believe that economic prosperity depends on cross-border business, technology, and foreign investments (De Mello Jr, 1997; Porter, 1990). However, the fact is that this cross-border business has become complicated because of the long-running accounting differences among regions. It is thus challenging for investors to assess firms' accounting information on a comparative basis because even a small difference between the accounting standards applied may have a significant impact on the firm's financial reporting disclosure. For instance, government grants and public donations are recognized in current profit under IAS 20 Grants but recorded as a capital reserve under ASBE 2006 No.16 (Ding & Su, 2008). In addition, according to IAS 38 Intangible Asset, all expenditure incurred at the development phase can be capitalized on the statement of financial position as an

¹ The International Financial Reporting Standards (IFRS): are accounting standards pronounced by the IFRS Foundation and the IASB is aimed to provide a commonly used language for corporate affairs, so that firm accounts are understandable and comparable across global boundaries.

intangible asset when all criteria are met. However, these expenditures were recognized as expenses under the previous ASBE 2001 (Heng & Noronha, 2011).

While the fact that the differences are increasing, the progress of establishing a set of global accounting standards is still fragmented. Therefore, in 1973, the International Accounting Standards Committee (IASC²) was established with an aim to form a standard guideline to conduct the convergence process between national accounting standards and a set of high-quality internationally recognized accounting standards. The efforts to harmonize accounting standards are then continued by the IASC successor, the International Accounting Standards Board (IASB). With an increasing number of countries converged with IFRS, the successful convergence process in the global accounting system has grabbed the attention of academics, standard-setters, and financial statement users, causing debate on the quality of accounting information pre- and post-IFRS convergence. High-quality accounting information is a prerequisite for establishing an effective communication mechanism between firms and the public (Francis, LaFond, Olsson, & Schipper, 2004). Most investors rely on this kind of information to predict trends of the stock price. The general proposition in relation to this fact is that the higher the quality of accounting information is, the more precise the estimation outcomes will be.

Economic capital is essential to the efficient functioning of modern economies. However, it has become a scarce resource in developing countries because of various imposed restrictions on investment boundaries. Therefore, it is urgent for those countries to build bridges to attract foreign investments and access international markets to stimulate economic growth. In this regard, IFRS convergence may be the one they need.

² The International Accounting Standards Committee (IASC): was organized by professional accountancy bodies in 1973.

Besides, some academics (Bushman & Piotroski, 2006; Pinnuck & Potter, 2009) argued that there are multidimensional factors in countries that affect the quality of accounting information.

Previous studies that evaluate the quality of accounting information between IFRS and GAAPs can be roughly divided into two categories: a) comparing value relevance between each other, and b) comparing earnings quality between them. Studies related to the first category typically summarized that IFRS enhances the value relevance of accounting information by reducing the information asymmetry between firms and the public (Iatridis, 2010; Siekkinen, 2017). In this regard, it is also worth noting that such study has become an important part of evaluating the success of IFRS convergence. In addition to academic studies, the importance of the value relevance of accounting information has also been emphasized by the international accounting standards board (IASB³) on its conceptual framework. Additionally, the value relevance of accounting information is measured by the ability of financial reporting to represent or summarize the operating information that affects stock performance. Francis and Schipper (1999) studied the relationship between stock reaction and financial disclosures based on this kind of measurement. In comparison, the second category focuses on the quality of earnings.

In May 2019, the IASB published the annual report 2018 for its foundation operations, which announced that now more than 166 jurisdictions are requiring, permitting the use of, or having a relevant policy of convergence with IFRS. It also indicated that 87% of jurisdictions require full compliance with IFRS for all or most domestic listed firms. The rationale for the widespread adoption of IFRS is based on the improvements in

³ The International Accounting Standards Board (IASB): is an independent expert group with extensive practical experience in developing and approving IFRS.

transparency and comparability of financial reporting (Hail, Leuz, & Wysocki, 2010; IFRS-Foundation, 2018). Despite the efforts demonstrated by countries worldwide to converge with the IFRS, the national standard-setters are still faced with the burning question of how IFRS convergence could benefit their economies (Elshandidy, 2014). Notably, its effectiveness is essential to assist emerging economies in rebuilding the financial reporting process and attracting foreign investments (Gordon, Loeb, & Zhu, 2012).

China is the largest and most influential emerging economy in the world, and convergence to IFRS is a substantial milestone in its process of becoming an international economy, following the footsteps of the European Union which adopted IFRS in 2005 (He, Wong, & Young, 2012; Jeanjean & Stolowy, 2008; Peng & Bewley, 2010). Before the IFRS convergence, Mainland China formed its national accounting standards based on a rule-based approach (Iatridis, 2010; Shields, 2010), while Hong Kong retains its own administrative and legislative function that is distinct from the Mainland China. The regulatory regime and administration system of Mainland China and Hong Kong exhibit a clear example of adherence to the principle of “One country, two systems⁴”. It means that Hong Kong retains its legal system, own currency, and financial system, which is separate from Mainland China. In addition, Mainland China is defined as a code-law region. Instead, Hong Kong practiced English common law. Consequently, firms listed in Hong Kong are required to comply with the Hong Kong Financial Reporting Standards⁵, known as HKFRS that are virtually identical to IFRS (Lam & Lau, 2009). In comparison, firms listed in Mainland China are required to comply with the Accounting System for

⁴ Sino-British Joint Declaration established Deng Xiao Ping’s policy on the principle of “one country, two systems.”

⁵ Hong Kong Financial Reporting Standards (HKFRSs) is a set of financial reporting standards formed by the HKICPA.

Business Enterprises (ASBE⁶). Although China accounting standards have converged with IFRS, there is still limited research on issues related to the cross-listed shares (AH-shares). Therefore, the actual benefits of IFRS convergence were less known to its various intended users in the context of Chinese cross-listed shares.

1.2 Research Background

The quality of accounting information has emerged as an important topic in accounting research since the 1990s (Lee, 1999). Most studies in this field focused on how to use the accounting information to predict firm valuation (Beaver, 2002). In this regard, some studies (Ball & Brown, 1968; Feltham & Ohlson, 1995) reported that the stock price is related to accounting earnings, while other studies (Barth, 1991; Landsman, 1986) found that it is also related to the measures of assets and liabilities of financial reporting.

To be useful, accounting information must be relevant (Cooper & Essex, 1977; Schroeder, Clark, & Cathey, 2001; Snavely, 1967). The IASB also emphasized the importance of the quality of accounting information, which is essential for decision-making. In this regard, several studies (Barth, Beaver, & Landsman, 2001; Barth, Landsman, & Lang, 2008) suggested that accounting information is defined as value relevant if it can have an impact on the prediction of market capitalization⁷. It means that the value relevance of accounting information can be measured through the statistical relationship between stock price and accounting information, in conjunction with operating, investing and financial activities (Feltham & Ohlson, 1995). Accordingly, the value relevance is mainly measured by the explanatory power R^2 and the changes in

⁶ This ASBE is formulated to standardize the accounting practices, ensuring the accounting information quality, in accordance with "The Accounting Law of the People's Republic of China".

⁷ Market capitalization, also known as the market value of equity, is the current stock price multiplied by the number of outstanding shares.

accounting data (Ali & Hwang, 2000). By referring to the work of Iatridis (2010), the value relevance has been defined as an important element to assess the quality of accounting information. It plays a pivotal role in understanding how accounting information reflects economic reality, which links to the fluctuation of stock prices. Therefore, it is essential to signal the importance of value relevance, which is crucial to determine the quality of accounting information, and in turn affect firms' stock trading volume (Hussainey & Aal-Eisa, 2009).

Over the past half-century, scholars have been devoting themselves to exploring the changes of fundamental characteristics of accounting information, and they pointed out that the IFRS convergence is an important step to address the diversity of accounting practices (Barth & Schipper, 2008; Jacob & Madu, 2009; Madawaki, 2012). Besides, the IFRS convergence is also vital to improve the value relevance of accounting information (Chalmers, Clinch, & Godfrey, 2011; Clarkson, Hanna, Richardson, & Thompson, 2011; Kaaya, 2015). In this regard, IFRS tends to be more principle-based than GAAPs. Therefore, the measures of assets and liabilities under IFRS can be deemed more relevant and reliable to reflect firms' economic reality. In comparison, the accounting treatments under GAAPs practiced by firms may trigger more complicated concerns because the relevant measures are inclined to be formalism. For example, accountants may be pressed to window dress accounting information for a higher valuation in the stock market, as evidenced by the high-profile corporate scandal case like Enron and WorldCom.

To minimize the adverse effects of accounting diversity, the IASB developed IFRS. It aims to reduce national financial reporting barriers through a uniform set of accounting standards (Brüggemann, Hitz, & Sellhorn, 2013). Furthermore, compared with GAAPs, IFRS is more reliable because those standards that have been replaced by IFRS are severely affected by institutional factors (Ball, 2006). Meanwhile, the IFRS convergence

has proven to be a favorable signal of conveying high-quality accounting information to users of financial statements (Chua, Cheong, & Gould, 2012; Cormier, Demaria, Lapointe-Antunes, & Teller, 2009; Soderstrom & Sun, 2007; Yip & Young, 2012).

Although the value relevance of accounting information increases upon IFRS convergence, there are still limitations in the value relevance studies. That is, even with a uniform set of accounting standards, the accounting practices after the IFRS convergence could vary significantly among different countries due to different cultures, financial reporting systems, and institutional settings (Cieslewicz, 2014).

1.3 Problem Statement

Several studies (Jonas & Blanchet, 2000; Tevelow, 1972; Wise, 2006) viewed the financial statements as an investment tool and noted that “*It provides intended users with the necessary information for their investment decisions.*” Typically, financial statements have been denoted as the primary source of publicly available information that helps intended users to assess the effects of firms’ past, present, and future events/transactions (AASB, 2004). However, it has been previously observed that the quality of such information is affected by the type of accounting frameworks applied. Currently, there are two accounting frameworks around the globe: IFRS and GAAPs. The primary difference between these two accounting frameworks is that GAAP is a rule-based accounting system, whereas IFRS is a principle-based accounting approach. Besides, the accounting standards developed based on the principle-based approach have been noted to have a higher reporting relevance together with fewer opportunities to “*exploit the gaps in GAAP*” (Agoglia, Douppnik, & Tsakumis, 2011; Chalmers et al., 2011; Sunder, 2009). Also, it is universally acknowledged that the high-quality accounting standards would provide the public with more relevant accounting information and is expected to reduce information asymmetry among global regions (Frankel & Li, 2004).

Regarding the quality of accounting information, numerous studies (Alford, Jones, Leftwich, & Zmijewski, 1993; Ball, Kothari, & Robin, 2000; Ball, Robin, & Wu, 2003; Cahan, Emanuel, & Sun, 2009) indicated that the value relevance of accounting information might also be affected by country-level factors (i.e., institutional factors, financial reporting systems, and culture clusters). Zezhong Xiao et al. (2004) reported that several factors were proved to have impacts on the accounting regime, whilst only political influence exerts an impact on the development of Chinese accounting. Meanwhile, Peng and Bewley (2010) selected China as the case to explore the feasibility and desirability of implementing IFRS accounting standards in a major emerging economy. They pointed out that the extent of IFRS convergence is affected by institutional and economic factors. Furthermore, more and more researchers are directed towards the accounting information system in emerging economy.

With increasing globalization, Chinese firms began to raise capital outside Mainland China by listing stock offshore on international exchanges to boost their global competitiveness. However, this internationalization strategy has proven to be extremely controversial. One of the reasons is that the previous China's accounting standards were a set of rule-based standards and presented in the Chinese language (Lin & Yen, 2016; Peng & van der Laan Smith, 2010). Thus, it is a challenge for foreign investors to understand firms' business nature by analyzing their financial statement during the period when the financial statements were prepared based on the ASBE 2001 (Peng, Tondkar, van der Laan Smith, & Harless, 2008). In addition to the complexity arising from the application of rule-based standards, the financial statements also suffer a complex integration process of converting these statements into "Western terms" (Winkle, Huss,

& Xi-Zhu, 1994). Therefore, China's Ministry of Finance (MOF⁸) released the latest version of the Accounting System for Business Enterprises (ASBE⁹) in 2006 (Heng & Noronha, 2011). With this 2006 decree, the new Chinese Accounting Standards (CAS) – ASBE 2006 replaced the previously issued ASBE 2001 and made significant progress in the process of convergence with IFRS (Nie, Collins, & Wang, 2013). Nevertheless, some accounting items have not been successfully converged due to several accounting scandals, for example, reversals on asset impairments (Peng & van der Laan Smith, 2010). In turn, because of these unsuccessful convergence items, the quality of accounting information between IFRS and ASBE might exist differences.

In the light of theories explaining this incremental and revolutionary change, signaling theory makes several predictions regarding the quality of accounting information. It suggests that by selecting accounting standards, firms intend to demonstrate that they have engaged in corporate accountability in a credible way. For instance, foreign-invested firms with high leverage prefer to comply with IFRS to satisfy lenders' needs and fulfil the conditions of debt covenants (Lambert, 2001). Also, because of the flexibility of financial statements, managers seem to be inclined to hold opportunistic views (Burgstahler & Dichev, 1997). This phenomenon may indicate that in order to attract more investments, management would like to affect the value relevance of accounting information to demonstrate a favorable transition to IFRS (DeFond & Park, 1997). Particularly in China, the reform of the national economy from a central-planned economy to a market-driven economy has drawn attention to the financial performance of Chinese listed firms. Therefore, compared with the previous GAAP accounting

⁸ China's Ministry of Finance (MOF) plays a macroeconomic role in the reform of the financial management system and is responsible for regulating accounting matters in China.

⁹ Accounting Standards for Business Enterprises (ASBE), including 38 accounting standards and have substantially converged with IFRS.

standards – ASBE 2001, a crucial question is how the IFRS convergence affects accounting information quality in the context of China.

Apart from the IFRS convergence studies of China, some researchers were also interested in how institutional factors affect the quality of accounting information, such as the regulatory enforcement (Chen & Zhang, 2010), the types of the financial reporting system, and accounting clusters (Ali & Hwang, 2000). Previous studies (Ball et al., 2003; Cuijpers & Buijink, 2005) argued that the differences in institutional settings might lead to non-comparable accounting measurements; even similar accounting frameworks are applied. Therefore, along with the substantial convergence with IFRS, there are still concerns that the success of IFRS convergence may be affected by the institutional factors with Chinese characteristics. In fact, the Chinese government continues to play a major interventionist role in the process of formulating national accounting standards (Ezzamel & Xiao, 2015), which motivates this study to explore how these factors shape the quality of accounting information pre- and post- IFRS convergence.

In this study, Mainland China is classified as a code-law region, while Hong Kong is a common-law region. In a code-law system, the government exerts a strong political influence on the development of accounting standards in order to obtain more benefits from the payout preferences while it may ignore the needs of public disclosure (Ball, Kothari, et al., 2000). Conversely, the accounting practices in a common-law system are primarily oriented to the need for public disclosure, of which firms' book value per share and earnings can be reflected on stock price timely (Francis, Khurana, & Pereira, 2001). Besides, prior studies also indicated that the effects of institutional factors on the accounting information vary over time. In other words, these factors differing across regions may affect the way how accounting standards applied. Therefore, evaluating the impacts of these factors is important for understanding how the value relevance of

accounting information changed in China. In the study, the Worldwide Governance Indicators (WGI) are used to evaluate the impact of institutional factors on the value relevance of accounting information. It is the first-generation aggregate indicators, which provide a ranking of around 200 countries and territories based on six dimensions of governance. For instance, when the government is unable to establish an effective regulatory system, its scores of WGI would be lower. In this situation, profit organizations would perform worse because they are more likely to use credit rationing to reduce information asymmetries or mitigate the adverse effects of a weak regulatory environment, which financially excludes the poor (Thomas, 2010). Conversely, when the score of WGI is higher, profit organizations would perform better as contract enforcement may encourage financial institutions to provide more financial services, thereby enhancing the market liquidity (Barry & Tacneng, 2014). So, with higher WGI scores, will excellent regulation capabilities ultimately lead to a better value relevance?

1.4 Research Motivation

The world is moving faster and closer to the convergence of accounting standards, and people are giving great hope to its future. This study was motivated by four main factors. Firstly, the research on the quality of accounting information has a long history. Many studies (Barth et al., 2008; Tarca, 2004; Tsalavoutas, André, & Evans, 2012; Van Tendeloo & Vanstraelen, 2005) have explored the impact of IFRS convergence and reported that the quality of accounting information would significantly increase upon IFRS convergence. However, only a few studies have investigated the impact of IFRS convergence on the Chinese stock market, especially for cross-listed shares.

Secondly, AH- shares firms have released their financial reports for a dozen years since the implementation of ASBE 2006 on the 1st January 2007. Therefore, the data collected

from these firms can process a more meaningful analysis on how the value relevance of accounting information has changed from 2000 – 2013.

Thirdly, A-shares are traded by local investors, while B-shares are traded by the qualified foreign institutional investors. In comparison, AH- shares are traded by both domestic and foreign investors. Correspondently, these cross-listed firms are required to issue both ASBEs and HKFRS to fulfil the requirements of exchanges' listing rules. However, previous studies mainly focus on A or B- shares and do not address the issues and underlying concerns of these cross-listed shares. Therefore, this study aims to provide a different basis for evaluating the achievement of IFRS convergence through the analysis of AH- shares. Besides, these cross-listed shares account for nearly one-third of market capitalization on the Shanghai Stock Exchange, and they are also a non-negligible part of the Hong Kong Stock Exchange (Zhang & Ye, 2020).

Finally, the institutional factors have been proven to have potential impacts on the quality of accounting information. For instance, the level of mandatory accounting disclosure, differences in accounting practices, and type of legal system are the most influencing factors that affect the value relevance of accounting information in developed countries (Anandarajan, Francis, Hasan, & John, 2011). Similarly, Jeanjean and Stolowy (2008) indicated that institutional factors play an instrumental role in framing financial reporting characteristics in the context of Australia, France, and the UK. Therefore, it is interesting to investigate how these institutional factors affect the neutrality of accounting information in emerging economics. To explore changes in the value relevance of accounting information and the impact of institutional factors, this study uses AH- shares. This type of shares means the firms that issue A- shares can also issue H- shares (Ke, Lennox, & Xin, 2015; Liu & Liu, 2007).

1.5 Research Objectives

Indeed, for many academics, practitioners, and standard-setters, IFRS convergence has been heralded as a significant step that provides higher quality accounting information to the public. The discussion over IFRS becomes essential since the public believes IFRS convergence is an important milestone towards making accounting information more transparent and reliable. Moreover, it is also important for researchers to explore answers to questions such as “Why IFRS?”, “How institutional factors affect the IFRS convergence?” and “Who benefits from IFRS convergence?”.

These answers inspired this study, aiming to explore the issues raised in the problem statement section. Specifically, the objective of this study is twofold. Firstly, it examines whether the IFRS convergence affects the value relevance of accounting information in the Chinese cross-listed firms. Secondly, the study intends to explore how institutional factors bear significantly on the value relevance of accounting information during the years 2000 – 2013. Overall, the study seeks to investigate the relationships between accounting information quality, IFRS convergence, and institutional factors.

1.6 Research Questions

In the seminal article, Ball and Brown (1968) found that there is a statistical relationship between accounting information and stock prices. Many studies have explored this linear relationship in different contexts. However, most of the studies focused on the developed economies, while less attention has been paid to the emerging economies where the quality of accounting information is also questionable. Besides, as mentioned earlier, the value relevance of accounting information may vary among regions due to different economic, social, and institutional contexts (Graham, King, & Bailes, 2000).

In 2007, China's ASBE was substantially converged with IFRS, which turned a new page in the history of Chinese accounting standards (CAS). Similarly, this convergence process is expected to bring incremental changes to the development of financial reporting. Therefore, the first research question is proposed as follows:

1. *Does IFRS convergence affect the value relevance of accounting information of AH-shares, during 2000-2013?*

Mainland China is a code-law region, while Hong Kong is classified as a common-law region. Therefore, this study proposes the following second research question considering the different social, cultural, and economic system.

2. *Do institutional factors affect the value relevance of accounting information of AH-shares?*

1.7 Structure of the Dissertation

The dissertation is presented in eight chapters. The remaining chapters of this study proceed as follows. Chapter Two discusses the development of accounting standards and securities trading in Mainland China and Hong Kong, respectively. Chapter Three offers a review of existing literature on the value relevance of accounting information globally and in China. This review is conducted in light of the research objectives and research gaps that need to be filled. Chapter Four begins with the theoretical framework of the study and discusses specifically on how hypotheses are proposed to address each research question. Then, it further elaborates how the signaling theory and the new institutional theory are applied together to explore the changes in the value relevance of accounting information in these AH- shares. In addition, this chapter gives discussions on an overview of the variables used in the study as well. Chapter Five is concerned with the research methodology used for this study, including research design, the explanation of

WGs, empirical models used, and the process of sample selection. Chapter Six presents the empirical analysis of the study and focuses on three critical sections. It includes the results of the statistical tests, Ordinary Least Squares (OLS) regression, and multiple regression analyses. Chapter Seven discusses the results of the empirical analysis and its implications, followed by Chapter Eight, which summarizes the findings of the study.

1.8 Chapter Summary

The IASB stated the objective of financial reporting is “*to provide information about the financial position, performance, and changes in the financial position of an enterprise that is useful to a wide range of users in making economic decisions.*” In other words, it means the information must be relevant and reliable. Also, it is essential to identify the importance of high-value relevant accounting information in helping intend users make economic decisions. However, accounting information is less relevant in developing economies because of market imperfections. Therefore, most developing economies are now beginning to require, permit, or have a relevant policy of convergence with IFRS.

Previous studies have also emphasized the importance of developing a uniform set of effective, efficient, and reliable accounting standards. This study aims to offer a more detailed and comprehensive view of the value relevance of accounting information with the impact of institutional factors. Due to the unique situation of Mainland China and Hong Kong, the result of the study has broader implications for investors, standard-setters, professional accounting bodies, and academics. For example, understanding the impact of IFRS convergence and institutional factors on the value relevance is important for investors to evaluate multi-jurisdiction investments. Similarly, it provides insight for standard- setters in the process of developing further accounting standards.

CHAPTER 2: REGULATORY FRAMEWORK OF ACCOUNTING AND SECURITIES TRADING IN MAINLAND CHINA AND HONG KONG

2.1 Overview

Accounting standards are designed to be a guide that not only supports national standard-setters to ensure the relevance and faithful representation of the financial statements but also assists investors to differentiate between good and inferior firms. Besides, there is a tendency for national accounting standards to converge with the IFRS. This phenomenon has brought up a question that is worthy of examination and investigation – “Why we need to embrace IFRS?”. Some academics claimed that it is mainly due to the adoption of different accounting standards in each country and this kind of difference makes it difficult for investors to compare financial information among various countries. Others argued that it is the main trend of the future as IFRS is gaining ground in jurisdictions throughout the world. The contentions brought to a further question – “Is the quality of accounting information of IFRS better than that of local GAAPs?” Enormous previous literature had obtained convincing results and pointed out that the accounting information reported under IFRS is more value relevant than that of local GAAPs (Iatridis, 2010; Outa, Ozili, & Eisenberg, 2017).

In this manner, it would be meaningful to review the development history of the accounting model from a panoramic view and explore the reasons behind the success of IFRS convergence across the globe. In the past, there were four accounting models, namely the British Commonwealth model, the Latin American model, the Continental European model, and the United States model (Frank, 1979). However, currently, the emphasis has been shifted to the distinction of two models – namely the Anglo-American accounting model and the Continental European accounting model as the result of global accounting convergence (d’Arcy, 2001). It is worth noting that each model has its own characteristics and unique advantages.

Back to the study, the evolution of Chinese financial reporting began in the early 1950s, and the economy has undergone tremendous changes since then. The recent rise of the Chinese economy is based on a mixed economic system that incorporates limited capitalism into a socialist economy. This combined economic development model absorbs lots of foreign capital, overturn the status quo and surpass the traditional economic model that has served the western countries for years. However, rapid economic growth revealed large numbers of accounting related issues such as weak accounting environment and lack of accounting infrastructure and knowledge. While all emerging economies face these issues during the process of their fast-growing economic development, there are unique political, historical, and institutional reasons why IFRS convergence takes a long and complicated process in China.

In comparison, Hong Kong retains its regulations according to the principle of “One country, two systems.” Accordingly, firms listed in Hong Kong are required to comply with HKFRS and Hong Kong Stock Listing Rules, which are different from the firms listed in Mainland China. Correspondingly, the quality of accounting information may be affected by the different institutional settings between Mainland China and Hong Kong, such as the different financial reporting systems, accounting standards applied, securities law and listing rules.

This chapter begins with an introduction of the role of four accounting models in the development of accounting concepts and practices. It will then focus on the development of the Chinese stock market and discuss its history, securities law, and listing rules. An explanation of AH- shares is given in this chapter to explain its role, nature, and importance for the study. Besides, this chapter also includes a discussion that revolves around the development and reform of Chinese accounting standards, as well as the benefits of IFRS convergence.

2.2 Introduction to Accounting Models

Studies on the relationship between institutional factors and the development of accounting standards have always been a hot topic in accounting literature. Previously, there were four accounting models, namely the British Commonwealth model, the Latin American model, the Continental European model, and the United States Model (Frank, 1979). However, now these accounting models have evolved into two major accounting models around the globe – the Anglo-American accounting model and the Continental European accounting model (d’Arcy, 2001). The term Anglo-American accounting model is used to describe the approach applied in the US, where accounting is oriented toward the investors’ decision needs. In comparison, the Continental European accounting model refers to the convergence of current accounting standards by adopting of IFRS in the European Union (Frank, 1979). Besides, it is worth noting that the Continental European accounting model is dominated by the prudence principle, while the Anglo-American accounting model is not (Hoarau, 1995).

Compared with the Continental European accounting model, the Anglo-American accounting model is better equipped to inform capital market participants (Epps & Oh, 1997). Obviously, they are different from each other, and the differences in these two accounting models are primarily due to the different cultures, environments, and the types of standards-setting processes followed (d’Arcy, 2001). For instance, Frank (1979) confirmed the impact of environmental factors on accounting standards through a factor analysis of the use of 233 accounting principles in 38 countries.

In a study conducted by Moonitz (1961), the research found that accounting postulates may be affected by the economic and political environment in which firms operate. In this regard, the Financial Accounting Standards Board (FASB) mentioned in its Exposure Draft that the objective of financial reporting stems from the intended users’ needs, and

these needs, in turn, are also affected by the nature of the business in which the users are involved (Dopuch & Sunder, 1980). If these factors have an impact on the development of accounting standards, and if these factors differ obviously between regions; then it is expected that the accounting standards practices and frameworks in these regions could be substantially different.

2.3 China's Stock Market and Corresponding Shares

It is essential to review the history of China's stock market, which helps us understand why IFRS convergence is critical to its economic development. Also, unlike the IFRS-setting process, the development of Mainland China's accounting standards is not wholly dominated by the standard-setting committee. Instead, it is highly influenced by the political system, accounting profession and market force (Shields, 2010; Zezhong Xiao et al., 2004). In addition, it has been proved that the success of IFRS convergence is because of the significant changes in the Chinese political attitude (Zhang & Andrew, 2016). The effectiveness of implementing IFRS convergence also highly relies on the accounting profession (Thomas, 2009). Besides, Zezhong Xiao et al. (2004) reported that a government would encourage the market forces to influence the development of accounting standards when the effect of the accounting profession is weak. Therefore, being a choice for Chinese accounting regulations, it is essential to consider whether the IFRS convergence is suitable for the development of China's stock market.

Since Mainland China began to open up and reform its economy in 1987, its Gross Domestic Product (GDP) has been growing averaged approximately 10 percent per annum (Cheng, Wong, & Woo, 2013). The economy has grown even faster since Mainland China reopened its stock market in 1990 (Liu & Liu, 2007; Teshima & Suzuki, 2008; Wang & Jiang, 2004). Moreover, the economic growth has helped oil the wheels of globalization-process because many listed firms had to open their branches in the

offshore market to adapt to the growing business. In this regard, a set of high-quality and internationally recognized accounting standards is much needed to help these firms consolidate the financial statements of overseas business units. However, the accounting standards applied crucially depend on the listing rules of the stock market where the firm is listed.

China's stock market is composed of a domestic and an offshore market. The first Mainland stock market is the Shanghai Stock Exchange (SHSE), which served as one of the two stock exchanges in Mainland China and founded on November 26, 1990. The other being the Shenzhen Stock Exchange (SZSE), established on December 1, 1990 (Wang & Jiang, 2004). The objective of establishing these two mainland stock exchanges is to provide a trading platform for privatizing government-linked firms. On the contrary, the Hong Kong stock market has a longer history of stock trading. Its origin can be traced back to the founding of China's first formal securities market, the Association of Stockbrokers in Hong Kong, which began as early as 1891¹⁰ (Jaggi & Jain, 1998). Although the Mainland China stock market is younger than its Hong Kong counterpart, since its inception, the Mainland China stock market has become the largest one in the emerging markets with 3,584 firms and a total market capitalization of around 43.49 trillion RMB (the equivalent of USD 5.44 trillion) at the end of 2018.

Table 2.1 shows the types of shares issued in China. Recently, stocks issued by Chinese firms can be divided into four categories, namely the A-shares, B-shares, H-shares, and twin-listing shares (i.e., the AH-shares). The A-shares are securities of

¹⁰ The Hong Kong Exchanges were reorganized in 1986, and many major developments have taken place, including the Securities and Futures Commission (SFC), which was set up as a result of significant regulatory changes and infrastructural developments.

Chinese incorporated firms which are listed and traded on the mainland stock exchange, and the financial statements are required to comply with the ASBEs (Liu & Liu, 2007).

Table 2.1: The Type of Shares in China

Share Class	Place of Incorporation	Trading currency	Available to Mainland Investors	Available to foreign Investors
A-Shares	Mainland China	CNY	Yes	-
B-Shares	Mainland China	USD	-	Yes
H-Shares	Hong Kong	HKD	-	Yes
AH-Shares	Mainland China	CNY/HKD	Yes	Yes

(Data source: Author's own)

In comparison, the H-shares are securities of firms incorporated in Hong Kong. These shares are traded on the Hong Kong stock market and the firms' financial statements are required to comply with HKFRS (IFRS-Foundation, 2018), which is identical to the IFRS. Although both B- shares and H- shares are available for qualified foreign investors, the main difference is that B- shares are listed and traded on the Mainland stock market, while H- shares are not. In addition to the different nature of share issuance, the operating mechanisms between Mainland China and Hong Kong stock markets are also quite different. For instance, the daily trading time of the Mainland stock market starts at 9:30 am and ends at 3:00 pm, while the Hong Kong stock market starts at 10:00 am and ends at 4.00 pm. Besides, there is no time zone difference between these two regions.

Also, compared with the Mainland stock market, the Hong Kong stock market is well established and has a more comprehensive set of listing rules, and most of the official information is disclosed in English (Pan & Brooker, 2014). It is worth noting that understanding these differences is imperative and essential to explore the impact of institutional factors on the quality of accounting information. The following discussion will turn to the last category of shares, i.e., AH- shares that are featured in Table 2.1 above and selected as the research sample for the study.

2.4 AH- Shares

When a Chinese incorporated firm is simultaneously listed on a domestic and an offshore market, it is regarded as a Chinese cross-listed share. In fact, there are two approaches for a Mainland listed firm to cross-list on the Hong Kong stock market (Shi, Zhang, & Zhou, 2018). The first approach is to take over a Hong Kong-listed firm by a holding firm controlled by the Chinese government. These government-controlled and Hong Kong-listed firms are known as “red-chips”. The second approach is that a Mainland listed firm directly listed its shares on the Hong Kong stock market. Accordingly, these shares are known as the “AH-shares”. In other words, this second approach indicates that a Chinese firm could have its shares traded on both the Mainland China and Hong Kong stock markets at the same time. The study's focus is on this approach, i.e., the twin listings of A-shares on Mainland China stock market and H-shares on Hong Kong stock market. In addition, as previously discussed, the shares traded on both Mainland China and Hong Kong stock markets are required to comply with both ASBEs and HKFRS.

Generally, to be assessed as an AH-share, a firm must fulfil the following criteria: 1) the firm is incorporated in China, and 2) the firm is listed on both the Hong Kong stock exchange and either one of Shanghai or Shenzhen stock exchanges, and 3) The actual controller of the firm is a Chinese state entity, or the firm is controlled by Chinese state entities (Pong, Gunthorp, & Chen, 2017).

To illustrate, Tsingtao brewery co. Ltd is the first AH- shares firm listed on the Mainland exchange as an A- share in August 1993 and on the Stock Exchange of Hong Kong as H-share in July 1993. Figure 2.1 shows the time series of H- and AH- shares and their market capitalization from 2000 to 2013. The figure shows that the H- share market has expanded quickly with a market capitalization of almost 22,441,759 million Hong

Kong dollars (the equivalent of USD 2,894,292 million) in 2013. The market capitalization of cross-listed shares (AH- shares) has also grown rapidly and contributed 4,906,583 million Hong Kong dollars (the equivalent of USD 632,797.2 million), but only has 51 listed firms.

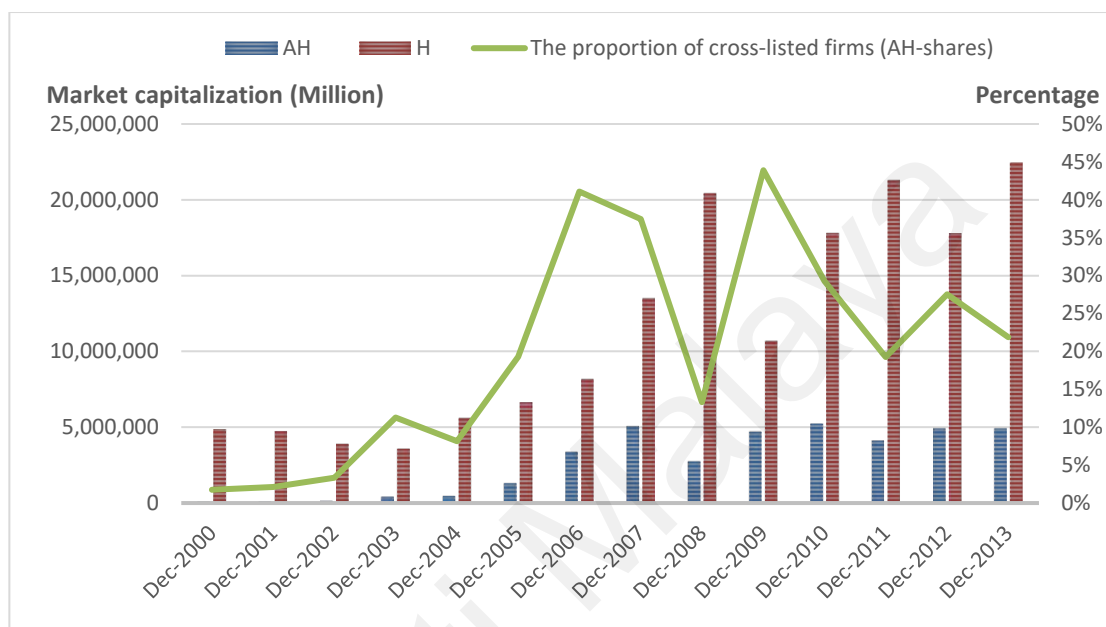


Figure 2.1: The Market Capitalization of H- and AH- Shares From 2000-2013

(Data source: Thomson Reuters Data-stream)

Most of the AH-shares are principally government-linked financial institutions, insurance institutes, or oil firms. It might be the reason that the number of AH- share listing is less than other types of shares. Moreover, AH- shares are required to issue financial reporting using both ASBE and HKFRS. The accounting information received by A- share investors is often audited by local audit firms. In comparison, the accounting information released in the H- share market is primarily audited by the Big Four audit firms. Therefore, the differences in the quality of accounting information may still stem from these aspects even Mainland China has successfully converged with IFRS since 2007. Ball et al. (2003) concluded that accounting standards do not solely determine the

quality of accounting information. In compassion, the institutional factors do play an essential role in defining the quality of such information.

2.5 Development and Reforms of China Accounting Standards

The Chinese accounting regulatory framework has been designed to promote national economy since the early 1950s (Davidson, Gelardi, & Li, 1996; Lin & Yen, 2016; Peng & van der Laan Smith, 2010). In 1979, after the speech of the former Chinese leader Deng Xiao Ping, China proposed significant economic reforms and an “operating-up” policy in response to the rapidly changing economic environment (Lim & Wang, 2008). It led to the transformation from a central-planned economic system to a market-driven economic system (Yeh & Wu, 1999). Table 2.2 shows the type of accounting standards released by China’s MOF. In addition, this study also summarizes how China’s accounting standards evolved to IFRS in Appendix A.

Table 2.2: The Type of Accounting Standards Released by China’s MOF

Year	Accounting standards released
1992	Experimental Accounting System for Joint Stock Limited Enterprises 1992
1993	Accounting System for Joint Stock Limited Enterprises 1993
2001	Accounting System for Business Enterprises 2001
2006	Accounting System for Business Enterprises 2006

(Data source: Author’s own)

Following the effects of economic reform, China’s MOF released the first set of western-oriented accounting standards for experimental listed firms in 1992 (Peng et al., 2008; Xu, Cortese, & Zhang, 2018). This “Experimental Accounting System for Joint Stock Limited Enterprises 1992” detailed the general principle of accounting as well as the treatments for assets, liabilities, shareholder’s equity, expenses, cash flows, and operating profits (Chalmers, Navissi, & Qu, 2010). Accounting variables and financial

information were classified for auditing purposes and annual review purposes. Besides, it constructed the format and content of financial reporting for public disclosures as well.

Notably, during the implementation period of the “Experimental Accounting System for Joint Stock Limited Enterprises 1992”, the MOF realized the need for the accounting of individual enterprises’ operating activities rather than that of the government-linked enterprises. Therefore, in July 1993, it released the second set of accounting standards, the “Accounting System for Joint Stock Limited Enterprises 1993”, as a conceptual framework to guide the preparation of financial statements in China (Winkle et al., 1994). It regulated the structure of financial statements and formalized the relevant accounting standards for both private and public sectors (Davidson et al., 1996).

To reconcile accounting earnings from the “Accounting System for Joint Stock Limited Enterprises 1993” to IAS, In January 1998, the MOF revised the second set of accounting standards for listed firms (Chen, Sun, & Wang, 2002), which made significant changes in asset recognition, revenue recognition, and business combination. Later, in the second half of 2001, it released its third set of accounting standards – Accounting System for Business Enterprises 2001, which revised the existing three sets of standards.

On December 11, 2001, China officially became the 143rd member of the World Trade Organization (WTO) and to meet the needs of globalization, China’s MOF released the latest version of accounting standards – ASBE 2006 (Heng & Noronha, 2011; Pang, Zhou, & Fu, 2002). The fourth set of accounting standards was pronounced in February 2006 and effective on January 1, 2007 and is applicable for all listed firms in Mainland China stock market (Heng & Noronha, 2011). It replaced the ASBE 2001 (the previous version) and 16 previously issued accounting standards with a set of revised basic accounting standards and 38 specific standards (Liu, 2019). However, this ASBE 2006 is intended to be a substantial convergence with IFRS rather than full compliance. It means using IFRS

as a basis for the development of the financial reporting system in China. In other words, it indicates that the converged accounting standards still comply with China's accounting laws (Peng & van der Laan Smith, 2010).

Although ASBE 2006 has not been in full compliance with IFRS, this revolutionary transformation has successfully created a demand for high-quality accounting information that bridges the gap between Chinese listed firms and international investments. Also, it is worth noting that China has obtained several significant benefits from this IFRS convergence. This view is further expanded by Peng and van der Laan Smith (2010) who explored the IFRS convergence in China from 1992 to 2006, and they summarized that 1) convergence with IFRS brings a measurement basis from a cost model to a fair value model, 2) the quality of firms' financial statements could be improved when appropriate accounting treatments are selected, and 3) firms become more transparent in the accounting information disclosure after IFRS convergence.

2.6 Benefits of Convergence with IFRS

There is a consensus among academics that the studies of IFRS could help countries expand their accounting knowledge beyond the national boundaries. Some of the commonly cited benefits of IFRS convergence are that it brings more discipline and rigor to financial reporting preparation (Black, Burton, & Paul, 2011), and greater transparency and consistency in accounting practice (DeFond, Hu, Hung, & Li, 2011). Besides, studies also found that IFRS convergence could potentially increase market liquidity (Daske, Hail, Leuz, & Verdi, 2008) and decrease the cost of capital for financing (Li, 2010).

Remarkably, one of the benefits of IFRS convergence is that it improves the quality of accounting information (Barth et al., 2008; Soderstrom & Sun, 2007). In turn, the quality of accounting information is affected by the type of accounting standard chosen. Compared with GAAP, IFRS makes accounting information more predictable by

reducing the differences between accounting estimates and disclosures (Ashbaugh & Pincus, 2001). Besides, it also showed that the differences in accounting standards applied would have an impact on the accuracy of earnings prediction. Iatridis (2010) confirmed the benefits of IFRS adoption on the quality of accounting information and reported that the value relevance of accounting information has improved upon IFRS adoption in UK. Studies (Ghio & Verona, 2015; Outa et al., 2017) emphasized the importance of IFRS convergence for developing countries as well, which helps them to synthesize knowledge about international standards and reduces the likelihood of problems arising from diverse accounting practices.

2.7 Chapter Summary

This chapter outlines an overview of the development of accounting models, China's stock market, and China's accounting standards. An accounting model is a fundamental principle that determines the methods used to recognize, measure, and report a firm's business activities. Besides, as social science, the accounting model is deeply affected by the environment in which it operates. Therefore, it can be expected that the value relevance of accounting information in Mainland China and Hong Kong might be different, due to the differences in cultural, business, and social environments as well as the impact of political influence, for example, the "one country, two systems".

China's Ministry of Finance is responsible for formulating economic policies and accounting standards. To date, it has released four sets of ASBE to support the country's economic development. This chapter also describes how the accounting standards in Mainland China and Hong Kong have evolved and why the Chinese government launched cross-listed shares (i.e., the AH shares). Also, this chapter briefly points out some benefits of IFRS convergence, as it is a long time and costly process.

CHAPTER 3: LITERATURE REVIEW

3.1 Overview

Over the last several decades, financial crises such as stock market crashes, credit crunches and sovereign defaults have shown exponential upward trends together with an increase of accounting frauds. Professional accounting institutions repeatedly call for the establishment of a single set of accounting standards to reduce the degree of information asymmetry. In fact, asymmetric information is one of the main reasons for the faith crisis in financial markets. Therefore, IFRS convergence has become a mainstream research topic which is given high expectations to address the financial risks caused by accounting frauds. Of all the various factors that motivate research in this area, the main considerations are regulatory compliance issues, costs, benefits, and advantages. Besides, the relevance of legal, social, financial, and technological influences has been a recurrent theme in the development of accounting standards and practices as well (Frank, 1979). Moreover, the IFRS convergence would improve the value relevance of accounting information also further motivates the exploration of its benefits.

As described earlier, previous studies concluded that accounting information is relevant if it has a prediction associated with firms' stock price. Based on that, several studies explored the relationship between accounting information and stock price by involving different research approaches in the context of IFRS convergence. Two main models have been proposed to examine this relationship – the price model and stock return model. The primary difference between these two models is that the price model focuses on defining changes in accounting information during a specific period, while the stock return model is designed to show how information is reflected in the firm's stock price volatility (Barth et al., 2001).

Overall, this chapter introduces previous studies on the value relevance of accounting information, including the relevant studies in China and an in-depth explanation of the Worldwide Governance Indicators (WGI), which is offered to gauge the moderating effects of institutional factors in ascertaining the value relevance of accounting information with Chinese characteristics.

3.2 Studies of Value Relevance of Accounting Information

There are a growing number of accounting studies focus on the comparison of accounting information quality among the IFRS convergence and other GAAPs. The academic debates over which accounting approach, either the principle- or rule-based, could generate more value relevant accounting information never stops. Furthermore, this controversy raises a question about how to assess the quality of accounting information. In fact, the most popular method for evaluating the quality of accounting information is to test its value relevance, which is a prerequisite for the accounting information to be reliable (Maines & Wahlen, 2006).

Value relevance is defined as a statistical relationship between accounting information and stock price. In other words, the value relevance represents the ability of accounting information that explains the firm's market value. Therefore, studies (Iatridis, 2010; Outa et al., 2017) operationalize value relevance as the explanatory power R^2 obtained from a regression of stock price on the firm's accounting information. In addition, Agoglia et al. (2011) concluded that high-quality accounting information restricts opportunistic discretion. This was supported empirically by several studies (Kim, 2013; Soderstrom & Sun, 2007) and added that high-quality accounting information is also associated with higher value relevance. Before the mandatory IFRS adoption in Europe, the value relevance studies were based on the comparison between countries' common law and code law status (Soderstrom & Sun, 2007). However, after IFRS adoption, the focus of

such studies shifted to the exploration of changes of the value relevance of accounting information pre- and post- IFRS adoption, or the differences between voluntary and mandatory IFRS adoption (Ahmed, Chalmers, & Khelif, 2013).

Likewise, this study also aims to examine the relationship between stock price and accounting information, which may help us to understand how the relevance and reliability of accounting information is reflected in equity values. Accounting information is relevant when it is significantly associated with the stock price (Beaver, 2002). Barth et al. (2001) proposed that studies related to value relevance not only provide investors with constructive insights but also help standards-setters to identify challenges that they may need to deal with.

In general, value relevance studies can be mainly divided into two perspectives: “a signaling perspective” and “a measurement perspective”. The signaling perspective focuses on the market response to the accounting information disclosed by firms. Easton (1999) used this methodology to explore the relationship between security returns and accounting data. Besides, Ball and Brown (1968) reported that the earnings are positively associated with positive earnings announcement. In comparison, the measurement perspective measures the statistical relationship between accounting information and stock price. It is the most popular methodology used in value relevance studies, among which Ali and Hwang (2000), Iatridis (2010) are two examples of this perspective. All of them use this methodology to test the changes in the value relevance of accounting data with either the impact of country-specific factors or IFRS adoption. This study also employs the same methodology to examine the explanatory power R^2 , the changes in book value per share and earnings per share in explaining stock price.

Chalmers et al. (2011) attempted to define whether the IFRS adoption increases the value relevance of accounting information for Australian listed firms over the 1990- 2008

period. The outcome confirmed that IFRS adoption does have an impact on the value relevance of accounting information. Specifically, they reported that the earnings account for a substantial part in explaining stock prices, whereas the book value of equity does not. Outa et al. (2017) investigated the value relevance of accounting information arising from the IFRS adoption in East Africa. The researchers reported that the accounting information from the post- IFRS period displays higher value relevance compared to that from the pre-IFRS period. Furthermore, many studies (Ball & Brown, 1968; Collins & Kothari, 1989; Sami & Zhou, 2004) investigated the relationship between accounting measures and stock returns under the assumption of a complete and perfect financial market. Their findings indicated that there is a statistical relationship between accounting information and stock prices. In comparison, other studies (Balsam & Lipka, 1998; Collins, Maydew, & Weiss, 1997; Penman, 1998) reported that in an imperfect financial market, a more effective and accurate methodology for evaluating this relationship is to directly predict the market value of equity-based assets on accounting earnings and the book value per share. Therefore, this study chooses to apply the price model to explore the impact of IFRS convergence on the value relevance of accounting information. In addition, by using both the stock return and price model, Iatridis (2010) found that accounting information is more value relevant upon IFRS adoption in the UK. However, the explanatory power R^2 in stock return model is far inferior to that in the price model.

3.3 Value Relevance of Accounting Information in China

The first objective of the study is to examine whether IFRS convergence could affect the value relevance of accounting information. Some studies (Barth et al., 2008; Bartov, Goldberg, & Kim, 2005) pointed out that IFRS convergence would help firms improve their accounting information quality. Therefore, its impacts and implications also deserve to be explored in emerging economies.

Since the late 1990s, the value relevance of accounting information in the Chinese financial market has attracted abundant research attentions (Bao & Chow, 1999; Chen, Chen, & Su, 2001; Sami & Zhou, 2004). Studies (He, Wong, & Young, 2009; Tang, 2000) regarding the preparation for IFRS convergence documented how it takes place in China. Also, the transition from China's accounting standards to the one converged with IFRS has proven to have an impact on the quality of accounting information (Chan, Hsu, & Lee, 2013). In addition to the studies concentrated on the impact of convergence through a direct comparison between IFRS and ASBEs, Rossetti and Verona (2017) explored the impact of IFRS in China by focusing on the B- shares. From their empirical analysis, the results confirmed that in B-shares, the IFRS adoption does have an impact on the value relevance of accounting information and China belongs to the Continental European model, which is different from the other Asian countries. Similarly, Zhang and Ye (2020) attempted to investigate the differences in accounting information content under China's accounting standards and IFRS from 2006 to 2017. They found that 92% of Chinese listed firms disclosed GAAP differences in 2006, prior to the IFRS convergence in 2007. In fact, these findings raised concerns about under which standards, accounting information tends to be more value relevant, either ASBE or IFRS.

However, there are limited studies that examine which accounting standards could provide China's market with more value relevant information in a comprehensive view. Instead, most studies focus on a relatively short period. For example, Liu and Liu (2007) provided empirical evidence on the value relevance of accounting information in China's A-, B- and H- shares from 1999 to 2003, and they found that the accounting information in B- and H- shares are more value relevant than that of A-share. Besides, they also reported some factors that might influence the value relevance of accounting information, such as the percentage of total tradable shares and the opening event of the stock market. Chalmers et al. (2010) examined whether the introduction of the ASBE 2001 in China

improved the value relevance of accounting information in A- and AB-share firms in seven years. They found that the accounting information better explains share returns for both A- and AB- share firms upon the adoption of the ASBE 2001. Similar to Chalmers et al. (2010), Rutledge, Karim, and Gong (2015) used AH- shares data to examine the degree of convergence of China's accounting standards with IFRS from 2006 – 2011. The results found that the IFRS convergence significantly minimizes the practice differences between China's accounting standards and HKFRS. Also, with a period of five years (from 2014 to 2018), Liu et al. (2014) explored the impacts from both ASBE and IFRS on the quality of accounting information, but only the A- and B- shares were considered. They concluded that accounting information disclosed based on ASBE and IFRS are both value relevant to investors, but IFRS provides more value relevant information, compared with that of ASBE.

All these indicated that the IFRS convergence could have a significant impact on the quality of accounting information. Similarly, several studies (Lin & Chen, 2005; Sami & Zhou, 2004) have reached the same points that the accounting information and stock price are more closely associated upon IFRS convergence. In contrast, other studies reported that the value relevance of accounting information has declined over time, especially since 1996 (Chen et al., 2001). A possible explanation may be that the market investors are not familiar with the new accounting standards – ASBE 2001. In addition, several studies noted that the quality of accounting information relies not only on the IFRS adoption but also on institutional settings. For instance, the regulatory framework plays a vital role in ensuring the quality of financial reporting (Alon & Dwyer, 2014; Chua & Taylor, 2008). Also, Xiang (1998) investigated how institutional factors influencing China's accounting reforms and found that the Chinese government and accounting profession played a leading role in formulating China's accounting standards. This aspect will be further elaborated below.

3.4 Value Relevance and Institutional Factors

The second objective of the study is to explore how institutional factors affect the value relevance of accounting information. In fact, many studies (Ball, Kothari, et al., 2000; Bushman & Piotroski, 2006; Manganaris, Spathis, & Dasilas, 2016) demonstrated that the value relevance of accounting information does not entirely depend on accounting standards but is also affected by some factors outside the accounting environment. For instance, Manganaris et al. (2016) explored how institutional factors affect the value relevance in the financial industry, and they found that the relationship between conservatism and value relevance is not straightforward. Instead, it depends on the environment in which a firm operates. Therefore, it can be expected that the value relevance of accounting information would be profoundly influenced by institutional factors, especially in the circumstance when the public interest and enterprise benefits contradict each other. In other words, it means that firms might intend to exhibit full compliance with IFRS to attract more foreign investments, while governments do not always prefer such an approach. Instead, the government tends to pursue local protection and force firms to act in the best interest of the country. This kind of regulation power may entail risks to the quality of accounting information since some politicians could misuse their position by imposing ineffective policy due to corrupt motives and actions. Besides, information asymmetry occurs when these politicians receive more information than others.

According to the signaling theory, governments can control these risks by enforcing directives through institutional mechanisms, laws, and regulations (D'Antoni & Galbiati, 2007). Hence, theoretically, a region identified with a higher score in the Worldwide Governance Indicators is expected to provide the public with more value relevant accounting information which is achieved by reducing the information asymmetry between firms and investors. In addition to the Signaling Theory, the New Institutional

Theory is also relevant to this study, because the value relevance of accounting information can be estimated differently due to the way how the accounting standards are converged with the IFRS in Mainland China and Hong Kong.

Previous researchers contended that various factors could lead to heterogeneousness in the value relevance of accounting information, even when the same accounting standards are applied (Ahmed et al., 2013). Given this consideration, it is essential to examine the impact of institutional factors in Mainland China and Hong Kong stock markets. Institutional factors such as culture, political and economic ties, legal system, and economic development are considered as significant factors that influence the financial reporting system (Hofstede, 1980; Shima & Yang, 2012). Some studies also reported that the legal system could affect the level of financial disclosures and accounting quality (Ball, Kothari, et al., 2000; Jaggi & Low, 2000). Besides, the investor protection mechanism is also a factor influencing the quality of earnings, as countries with a strong investor protection mechanism are less likely to have a lower quality of earnings. Therefore, the value relevance may vary in different regions because of the differences in financial reporting system, culture, and political system.

The institutional factors are important in this study. These factors reflect an indicator of a region's soundness and stability of regulation in supporting the financial reporting environment and its respective constituents. In addition, these factors have been broadly assessed by the Worldwide Governance Indicators, one of the renowned approaches for quantifying these institutional factors in scores. These Worldwide Governance Indicators reflect each country's policy-making process, legislation, bureaucracy, and judicial institutions (Kaufmann, Kraay, & Mastruzzi, 2011; Kaufmann, Kraay, & Zoido, 1999). Some studies argued that, although with the success of IFRS convergence, the value

relevance of accounting information may not achieve the expected improvement if the convergence process is affected by institutional factors.

3.5 Institutional Factors

Many studies have investigated issues related to the role of institutional factors and their impact on the quality of accounting information. Institutional factors that affect the value relevance of accounting information include political stability, investor protection mechanism, tax system, legal system, financial reporting system and government policy (Ball, Kothari, et al., 2000; Hung, 2000). In fact, these factors guide the behavior that forms the social structure. Sophisticated accounting environment depends precisely on these factors (Cieslewicz, 2014). It means that to achieve high quality accounting information, these institutional factors should support each other and be function well. The most popular method for academics to measure these institutional factors is the Worldwide Governance Indicators. For instance, Cieslewicz (2004) used these indicators to investigate the relationships between national economy, institutions, and accounting quality and reported that these institutional factors have direct influences on accounting quality.

Table 3.1: The Six Dimensions of Worldwide Governance Indicators

No	Worldwide Governance Indicators
WGI1:	Voice and accountability
WGI2:	Political stability and absence of violence
WGI3:	Government effectiveness
WGI4:	Regulatory quality
WGI5:	Rule of law
WGI6:	Control of corruption

(Data source: The official website of the World Bank)

Therefore, following the studies of Thomas (2010), Kaufmann et al. (2011) and Cieslewicz (2004), this study endorses the assertions from the above research and decides

to use the same method to measure the role of institutional factors in affecting the value relevance of accounting information. This set of Worldwide Governance Indicators is adopted from a long-standing research program of the World Bank. These indicators include six different dimensions of governance, as shown in Table 3.1. In addition, it also helps this study explore whether some institutional factors affect the value relevance, while others do not.

3.6 Chapter Summary

From the review of existing literature, this chapter has discussed the studies of value relevance of accounting information in both China and Western countries, as well as the relations with institutional factors. It was observed that these studies related to IFRS convergence are mainly focused on what happens in the value relevance pre- and post-IFRS convergence. However, limited studies have explored the impact of these factors that affect the value relevance of accounting information, especially those with Chinese characteristics, as reflected in the AH- shares. Therefore, there is a research gap in the existing literature. It can be referred to the impacts of institutional factors on the changes of value relevance of accounting information pre- and post IFRS convergence in the context of different regulatory regime as inherent in Mainland China and Hong Kong.

Also, it is worth noting that the overall literature review helps to develop and conceptualize the research framework for the study, which will be further elaborated in the following chapter.

CHAPTER 4: THEORETICAL FRAMEWORK AND HYPOTHESES

DEVELOPMENT

4.1 Overview

A shift from a central-planned economy system to a market-oriented economy system arouses a new phase in the development of China's accounting standards. A remarkable characteristic of this economic reform is China's MOF decided to converge with IFRS. As emphasized in the previous chapter, this convergence process represents a significant milestone in the historical vicissitudes of China's accounting standards. Therefore, by considering the benefits of IFRS convergence and its associated economic contributions, this study attempts to analyze the cross-listed shares with a broader view to learning how IFRS convergence affect the value relevance of accounting information, as well as the impact of institutional factors.

This chapter discusses the theories, hypotheses development and research framework of the study. In general, research theories are developed by academics to explain, predict, and understand certain phenomena (Abend, 2008). A theoretical framework is a description that explains how to apply these theories to support studies. In fact, most of the empirical studies rely on a theoretical framework to form its process of testing hypotheses (Friedman, 1970). Therefore, this study establishes a theoretical framework to conceptualize the impacts of IFRS convergence and Institutional factors on the value relevance of accounting information based on the Signaling Theory and New Institutional Theory. In addition, the last section of the chapter proposes two sets of hypotheses, as follows: 1). to explore the changes in the value relevance of accounting information pre- and post- IFRS convergence in AH- shares; 2). to investigate the impact of institutional factors on the value relevance with six sub-hypotheses based on the theoretical framework identified.

4.2 Signaling Theory

The signaling theory was proposed in the early 1970s and primarily based on the works of Akerlof (1970) and Spense (1973), who received the 2001 Nobel Prize for their work in information economies. Some academics (Certo, 2003; Connelly, Hoskisson, Tihanyi, & Certo, 2010) used this theory to explain how high-quality firms signal their quality to investors. Correspondingly, it is expected that markets will respond rapidly to the new information if it represents a positive affirmation for financial performance (Fathi, 2013). Once the information is released, all market participants will interpret and analyze the meaning to capture favorable signals through this message. The volume of stock trading will be increased if it is beneficial to participants. Obviously, the signals between low- and high- quality accounting information are different. Therefore, following the signaling theory, firms are considered to chase higher-value relevant accounting standards to signal their potentiality to stakeholders, especially when the business environment they operate is weak.

Specifically, this theory aims to provide a systematic approach of determining the quality of information when information asymmetry is high and potential agency issues are pervasive. In the seminal paper, Spense (1973) changed the way academics view the impact of information asymmetry on decision making and gave an example of an employer who encountered information asymmetry when trying to distinguish between high-quality and low-quality candidates. In this example, the major difference between these two types of candidates is the education level, which serves as an essential signal that helps employer select high-grade talented employee. Apparently, adopting this comparison method is because candidates with higher academic qualifications generally perform better. In addition, higher education qualifications are costly and difficult to obtain. Therefore, this paper summarized that there are two criteria for the signal: “observable” and “costly to obtain.”

Similarly, the IFRS convergence is an observable and costly process. In its role as a bridge between Chinese firms and foreign investment, this convergence process not only helps firms to signal their potential to investors but also guides them to establish a standardized financial reporting process. Besides, it can also be expected that investors would favor the firms with higher value relevance of accounting information.

In empirical studies, researchers generally adopted the accounting-based model to explore the relationship between accounting information and stock price (Clarkson et al., 2011; Easton, 1999; Hassel, Nilsson, & Nyquist, 2005; Ota, 2003). In this regard, the use of signaling theory is intended to elaborate on the changes in value relevance associated with the presence of asymmetric information between financial reporting and stock performance. Therefore, the founding theory widely was employed in the literature that sets to postulate such relationship is the signaling theory which stresses the relationship between signals and values.

Prior studies also concluded that signaling theory could overcome problems caused by information asymmetry and pass the relevant information to the stock market (Ajina, Lakhal, & Sougné, 2015; Mavlanova, Benbunan-Fich, & Koufaris, 2012). Moreover, the adoption of IFRS could also provide firms with competitive advantages through communication, high-quality financial reporting, and value relevance improvements, thereby enhancing their signaling capabilities (Devalle, Onali, & Magarini, 2010; Soderstrom & Sun, 2007; Taylor, Tower, & Neilson, 2010). The IFRS convergence is expected to bring more benefits and value relevant information to investors and help them make more accurate economic decisions. Besides, it is also hoped that this study will contribute to a deeper understanding of the use of signaling theory in the IFRS convergence process and the power it attaches to accounting information.

4.3 New Institutional Theory

The term “Institutions” was first introduced in 1725 by Giovan Battista in his new science (Nurunnabi, 2017). In fact, there are many definitions for “institutions” given by academics. For instance, social institutions are an essential element in forming social structure. These institutional factors organize rules of games in a society, which shape and constrain the behavior of humans (Gertler, 2010). Obviously, they affect the way how society operates. Organizations such as government, business entities, and social communities are the key determinants in defining institutional factors (Wysocki, 2011). Likewise, these organizations are also impacted by the environment they operate. Therefore, organizations operating in different environments are assumed to compare their behavior with each other (DiMaggio & Powell, 1983). The regulations and laws reflect the rules and procedures that are perceived as “right” within society. In this regard, the IFRS is a set of global accounting standards that has been widely accepted. Also, in relation to IFRS convergence in Mainland China and Hong Kong, institutional factors are crucial because they affect the success of the implementation of IFRS and how accounting standards are practiced. DiMaggio and Powell (1983) pointed out that there are three categories of isomorphism: coercive isomorphism, mimetic isomorphism, and normative isomorphism. These three categories can be used to illustrate how value relevance changes under different levels of convergence with IFRS in Mainland China and Hong Kong.

The first form is the coercive isomorphism, which refers to the similarity within a population of organizations under political pressure (Meyer & Rowan, 1977). However, it can also result from both formal and informal pressures exerted on the organization by other factors, such as the legal system operating in a country. For instance, international financial institutions such as the World Bank, the World Trade Organization, and the International Monetary Fund, play a central role in supporting economic policy and

reforming public institutions in developing economics. These institutions represent a major global institutional effect that is promoting IFRS in developing countries. Even in some cases, IFRS adoption is one of the requirements of their loans, i.e., IMF loans (Alfredson et al., 2005; Mir & Rahaman, 2005). In addition to this coercive isomorphism, some studies (Francis, Khurana, Martin, & Pereira, 2011; Garcia-Sanchez, Cuadrado-Ballesteros, & Frias-Aceituno, 2016) mentioned the importance of the legal environment in the disclosure and auditing of information. The legal environment is a crucial determinant of coercive isomorphism (Martínez-Ferrero & García-Sánchez, 2017).

Moreover, the legal environment has many different interpretations in this study. It refers to "rule of law", "the regulatory quality", "the control of corruption", and "the political stability" of the worldwide governance indicators in relation to the value relevance of accounting information. For example, the Hong Kong Institute of Certified Public Accountants (HKICAP¹¹) requires all listed firms in Hong Kong to comply with HKFRS or IFRS. In comparison, firms listed in Mainland China are required to comply with ASBE. These requirements obviously aim to maintain the quality of accounting information at a reliable level by implementing a coercive policy.

The second category is the mimetic isomorphism. It is the way how the organization imitated other organizations' actions that are perceived as a more successful player in the institutional environment (Rodrigues & Craig, 2007). Zhang and Ye (2020) discussed the process of China's convergence towards IFRS. They found that the reason why China's MOF released the IFRS converged accounting standards – ASBE 2006 is because of both coercive external and internal pressures (e.g., the pressure from the World Trade Organization). In this regard, the IASB convinced countries to converge their accounting

¹¹ Under Hong Financial reporting law, the HKICPA is responsible for setting accounting standards in Hong Kong.

standards with IFRS, which produced a substantially converged product. In China, it is ASBE, an IFRS with Chinese characteristics. This convergence process between IFRS and China GAAP is a manifestation of mimetic isomorphism. Also, it reflects the government effectiveness in the process of forming this converged accounting standard. In other words, countries without high government effectiveness, this mimetic isomorphism would probably not succeed. In this study, one of the dimensions of Worldwide Governance Indicators – government effectiveness is used to reflect this mimetic isomorphism in connection with the value relevance of accounting information.

The third category is the normative isomorphism, which refers to professionalism. Professional accounting bodies such as the Institute of Chartered Accountants in England and Wales (ICAEW), the Association of Chartered Certified Accountants (ACCA), and the Chinese Institute of Certified Public Accountants (CICPA) influence the process of developing accounting standards by participating in the due process. In this study, this isomorphism reflects to what extent these professional accounting bodies could freely participate in the formulation of accounting standards. In addition, this isomorphism refers to the “voice and accountability”.

Academically, the term “institutional isomorphism” refers to the situation where organizations in an environment become more homogeneous due to political, legitimacy, or other social factors. Therefore, along with the New Institutional Theory, this study applies Worldwide Governance Indicators to measure the institutional factors and estimate their impact on the value relevance of accounting information.

In summary, the existing literature signifies that there is a gap in applying both the Signaling theory and the New Institutional Theory to explore the changes in the value relevance of accounting information. Therefore, first, this study hypothesized that the value relevance of accounting information would be changed due to IFRS convergence

when China decided to join the WTO. Second, China decides to convergence with IFRS rather than full compliance because of its own interest and national conditions. Third, those professional accounting bodies supporting the IFRS convergence not only provide a training program for Chinese students to improve their knowledge on IFRS but also help firms establish an effective financial reporting mechanism in accordance with IFRS.

4.4 Theoretical Framework

Value relevance studies, which focus on the relationship between accounting information and stock price, have emerged as a central theme in accounting studies as it is a meaningful exploration process, especially for firms listed in emerging economies. In fact, this kind of studies uses various valuation methods to conduct their tests. There are several measurement methods that can be used to determine market capitalization, e.g., Net assets method of share valuation, P/E ratio (earnings) method of valuation, Earnings yield valuation method, Free cash flows valuation and Black-Scholes pricing model. However, none of these methods is precise, and each of them may produce different results. Therefore, it may be better for investors to use them in combination to predict stock performance. Besides, the most common accounting variables used for valuing a listed firm are stock price, book value per share, and earnings, which is heavily linked with market-to-book ratios (Kim & Ritter, 1999).

In addition to these findings, some studies (Barth, Beaver, & Landsman, 1998; Breen, 1968) found that the coefficients of the stock price, book value per share, and earnings are also easily affected by the industry relatives. One of the examples from the accounting perspective is the intangible assets, which are subject to accounting restrictions if they are internally generated. For example, high-tech firms such as pharmaceutical firms may hold a substantial amount of unrecognized intangible assets under IAS 38 Intangible Assets, of which the research and development expenses should be recognized rather than

capitalized. Therefore, the earnings method may report a lower explanatory power R^2 than that of the book value method in valuing the high-tech firm's market capitalization. In contrast, book values of assets and liabilities can reflect the majority of low-tech firms' financial positions such as Oil and Gas firms.

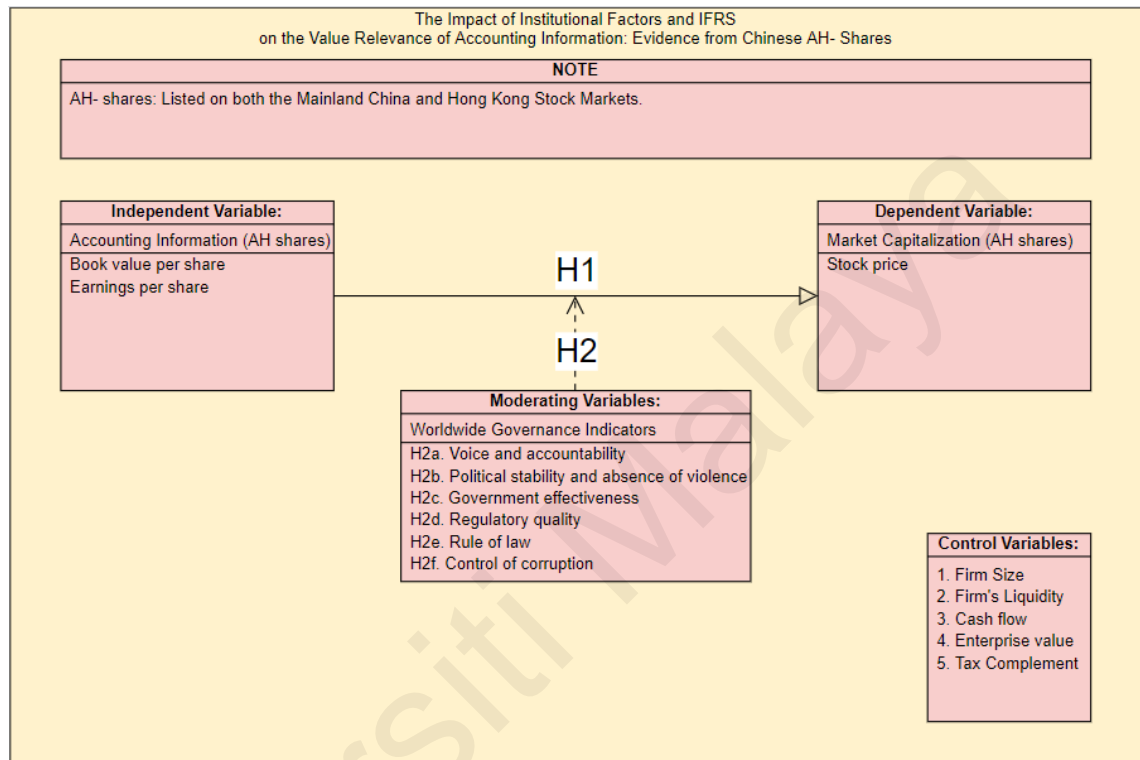


Figure 4.1: Theoretical Framework

Thus, the study developed the theoretical framework in Figure 4.1 above to explore the changes in the value relevance of accounting information conveyed by the financial statements pre- and post- IFRS convergence. Based on this theoretical framework, the value relevance of accounting information was mainly examined by explanatory power R^2 and then the coefficients obtained from the OLS regression were compared through the price model (Iatridis, 2010). Furthermore, Chapter five would further describe and elaborate on the model used in this study.

4.5 Hypothesis Development

As mentioned earlier, there are numerous published studies that confirmed that the IFRS convergence does have an impact on the quality of accounting information and provides positive insight on its benefits (Barth et al., 2008; Hung & Subramanyam, 2007; Tarca, 2004; Tsalavoutas et al., 2012; Van Tendeloo & Vanstraelen, 2005). IFRS convergence therefore may play a key role in affecting the value relevance of accounting information. It is also worth noting that the value relevance is easily affected by the industry relatives.

Before IFRS convergence, Mainland China applied ASBE 2001, which was classified as a set of GAAP standards and designed to serve the national policies (Davidson et al., 1996; Lin & Yen, 2016; Peng & van der Laan Smith, 2010). After 2006, China's Ministry of Finance released a new set of accounting standards - ASBE 2006, which is significantly converged with IFRS. Therefore, this study expects that the application of the new set of accounting standards would have a significant impact on the value relevance of accounting information. Therefore, the first hypothesis was proposed:

H₁: IFRS convergence has significantly improved the value relevance of accounting information of Chinese cross-listed firms in its AH-shares.

H_{1a}: The accounting data reported under ASBE 2006 are likely to exhibit higher value relevance than that under ASBE 2001.

Institutional factors play an important role in financial market development (Fearnley & Gray, 2015; Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998; Xiang, 1998). To explore the effects of institutional factors on the value relevance of accounting information between ASBE (Mainland China) and HKFRS (Hong Kong), this study employs the Worldwide Governance Indicators, which is developed by the World Bank.

In this regard, it is important to note that China is a code law country (Iatridis, 2010), while Hong Kong is operated under the common-law system.

In code-law countries, the accounting system is strongly affected by government influence and tax laws (Ballas, 1994). Specifically, the accounting system is mainly oriented in serving the national interest. Accordingly, conservatism and historic cost principles ensure that firms' value will not be higher than the intrinsic value. Therefore, firms' value appears to be lower or equal to their intrinsic firm value (Kousenidis, Ladas, & Negakis, 2010). In other words, it reflects that the value relevance in code-law countries may be at a low level as the book value measurement of the financial reporting does not represent its real value, even compared with its associated stock price. In contrast, IFRS aims to provide shareholders with enhanced accounting information rather than merely focusing on the national interest. Compared with code-law countries, common-law is a different system, each score of the Worldwide Governance Indications may be different. Besides, the study also emphasizes the different ways of how accounting is converged with IFRS according to the New Institutional Theory. In addition, the Worldwide Governance Indicators are expected to measure the impact of institutional factors on the relationship between stock price and accounting information in Mainland China and Hong Kong. In this respect, one of the projects from world bank development research group – Kaufmann et al. (1999) have demonstrated each different dimension of the Worldwide Governance Indications and based on these arguments, the second hypothesis was structured as follows:

H₂: The institutional factors affect the value relevance of accounting information of AH- shares.

As this study looks at each dimension of the Worldwide Governance Indicators, the following sub-hypothesis thus are further developed:

4.5.1 Voice and Accountability

The first governance cluster aims to capture the institutional impact from the perspective of voice and accountability. It refers to the extent that national citizens can vote freely in their government elections, as well as media independence. It is acknowledged that the application of IFRS alone is insufficient to ensure high-quality financial reporting (Hail et al., 2010). Meanwhile, the growing influence of voice and accountability is strongly likely to have repercussions on the effective formulation of accounting standards in the due process. For instance, the voice from social groups is critical to define whether IFRS 15 Revenue from Contracts with Customers is more suitable for current economic development and social needs than previous IAS 18 Revenue. Besides, it also includes the independence of social media, which plays an essential role in monitoring firm performance and establishing an effective communication mechanism among investors, corporate management, policymakers, government agencies, and academics (Alexander & Gentry, 2014). Thus, it is expected that voice and accountability will affect the value relevance of accounting information. On this basis, the study hypothesized that:

H_{2a}: The voice and accountability affect the value relevance of accounting information of AH- shares.

4.5.2 Political Stability and Absence of Violence/Terrorism

The second governance cluster aims to capture the institutional impact from the perspective of political stability and absence of violence/terrorism. It refers to people's perceptions of the likelihood that the government is shaken or overthrown by unconstitutional or violent repression like the financial market can be adversely affected by terrorist attacks. A stable political environment will enhance the trust of investors. In contrast, terrorist attacks cause damage. For instance, on 11 September 2001, numerous

firms were destroyed or damaged in the violent attacks, causing insurance losses of approximately \$40 billion (Cummins, 2006). Thus, it is expected that the political stability and absence of violence will affect the value relevance of accounting information. Based on that, the study proposed hypothesis H2b:

H_{2b}: The political stability and absence of violence affect the value relevance of accounting information of AH- shares.

4.5.3 Government Effectiveness

The third governance cluster aims to capture the institutional impact from the aspect of government effectiveness. It refers to the quality of bureaucracy and the quality of public service provided. Previous studies (Barton, 2005; Chen et al., 2002) have stated that excellent government efficiency can stimulate economic development. Moreover, the successful implementation of accounting standards relies on an effective political mechanism. Thus, it is expected that government effectiveness will affect the value relevance of accounting information. Therefore, the study hypothesized that:

H_{2c}: The government effectiveness affects the value relevance of accounting information of AH- shares.

4.5.4 Regulatory Quality

The value relevance of accounting information relies not only on accounting standards but also on the financial reporting environment. Several prior studies (Daude & Stein, 2007; Rammal & Zurbruegg, 2006) defined that regulatory quality has a positive impact on financial market development. For example, the United States has established one of the most comprehensive financial markets based on its harsh regulation. The regulatory quality also plays a vital role in influencing the development of accounting standards. In addition, it is measured by the extents to which citizens have confidence in and abide by

the rule of society, concerning the quality of contract enforcement, public officials, and the possibility of law-breakings (Kaufmann et al., 1999), such as the enforcement of accounting standards and other forms of excessive regulation.

It has been conclusively confirmed that China has opened a new chapter for economics since Deng. The new political-ideological principles lead the way for a different view on national accounting system development, which has caused the convergence towards IFRS (Ezzamel, Xiao, & Pan, 2007). Admittedly, it is also noted that the benefits of IFRS convergence are concentrated in countries with stronger law enforcement and investor protection (Chen, Lee, Lobo, & Zhu, 2019). Thus, it is expected that the regulatory quality will affect this value relevance. On this expectation, the study hypothesized that:

H_{2d}: The regulatory quality affects the value relevance of accounting information of AH- shares.

4.5.5 Rule of Law

The fifth governance cluster aims to capture the institutional impact from the perspective of the rule of law. It refers to the government's capability to form and announce sound policies and regulations that enable investors and the government to resolve their conflicts. Several studies (Haggard & Tiede, 2011; Scully, 1988) revealed that the rule of law and economic development are strongly interrelated and mutually reinforce. Thus, it is expected that the rule of law will affect the value relevance of accounting information. The study thus hypothesized that:

H_{2e}: The rule of law affects the value relevance of accounting information of AH- shares.

4.5.6 Control of Corruption

The sixth governance cluster aims to capture the institutional impact from the perspective of the control of corruption. It refers to the extent that public power is abused for private gain, which has many consequences for accounting. Prior studies (Alon & Hageman, 2013; Cummings, Martinez-Vazquez, McKee, & Torgler, 2009) found that financial compliance is positively related to the successful control of corruption. For instance, control of corruption is essential to promote tax compliance, especially in developing countries. Thus, it is expected that the control of corruption will affect the value relevance of accounting information. The study, therefore, hypothesized that:

H_{2f}: The control of corruption affects the value relevance of accounting information of AH- shares.

For the first hypothesis regarding the value relevance of accounting information, the study explores the changes by comparing ASBE 2001 and ASBE 2006. It covers the period from 2000 to 2013. Similarly, the second set of hypotheses test the impact of institutional factors by introducing the Worldwide Governance Indicators.



Figure 4.2: The Historical Evolution of China's Accounting Standards

(Data source: The official website of the China's Ministry of Finance)

Figure 4.2 above shows the historical evolution of Chinese accounting standards, and how the financial statements are prepared for AH- shares in accordance with the corresponding accounting standards.

4.6 Chapter Summary

Drawing from the literature review in chapter three, this chapter develops a theoretical framework based on the research gaps identified from prior studies. This theoretical framework is heavily dependent on the signaling theory, from which the higher value relevance of accounting information could help investors select a high-quality firm. Besides, the study also introduces the new institutional theory that could be used to explain the impact of institutional factors on the value relevance and how IFRS is converged in both Mainland China and Hong Kong.

In addition, this chapter also illustrates the supportive literature of research hypotheses development based on the relationship between accounting information, stock price, and institutional factors. The next chapter focuses on the research methodology used in this study.

CHAPTER 5: RESEARCH METHODOLOGY

5.1 Overview

The purpose of the chapter is to discuss the research methodology used in this study to explore the changes in the value relevance of accounting information of AH- shares. It is widely accepted that research is a systematic tool used to find, collect, and analyze information in an organized manner (Saunders, Lewis, & Thornhill, 2007). Also, the selection of an appropriate research methodology is essential for addressing the research questions identified in the first chapter.

The rest of the chapter describes the study's research design and the relevant procedures processed, such as the sampling selection, data collection procedures and data analysis. In addition, the study used a paired sample t-test, explanatory power R^2 comparison, coefficient analysis and industry relatives to quantitatively measure the changes in the value relevance of accounting information pre- and post- IFRS convergence, as well as the impact of institutional factors.

5.2 Research Design

The research design refers to the framework that has been created to explore answers to address the research questions (Blaikie & Priest, 2019). Research design can be of different types, such as behavioral research, cross-section design, experimental design, sequential design, systematic review, and survey research. Due to the nature of the study, the longitudinal research method¹² is employed to explore the changes in the value relevance using panel data¹³ collected during the year from 2000 to 2013.

¹² Longitudinal research refers to research involving data gathered at multiple points in time and focuses on the measurement and analysis of changes over time in the units of study

¹³ Panel data is the information collected from the same individuals or units at different points in time. In this study, it refers to annual accounting information of AH shares from 2000 to 2013.

The use of longitudinal research method is a complex but meaningful process. The longitudinal research method is widely adopted that enables researchers to study the changes of units over time and thus obtain an in-depth understanding of units (Ployhart & Vandenberg, 2010). In comparison, most of the cross-sectional research for this topic generally focused on the year of IFRS convergence or the reconciliation items and showed that IFRS convergence does strengthen the relationship between accounting information and stock price (Chen et al., 2001; Haw, Qi, & Wu, 1999). Therefore, this study adopts a longitudinal research method because of the nature of the study. It aims to explore the changes in the value relevance of accounting information in the pre- and post- IFRS convergence period. Also, it is worth noting that this study can be used to compare not only with the previous studies but also with those studies exploring the benefits of IFRS convergence in other countries.

This study is conducted by gathering secondary data and analyzed using statistical techniques through the modeling analysis following the previous studies in (Chen et al., 2019; Lin, Riccardi, Wang, Hopkins, & Kabureck, 2019). Secondary data refers to data that is gathered by others. In other words, the source of secondary data analysis is mainly based on primary research findings (Riedel, 2000). In addition, following previous studies on the value relevance, the first step of the analysis is to develop an empirical model to examine whether there is an incremental improvement in the explanatory power R^2 . The second step is to compare the coefficients obtained from the regression model pre- and post- IFRS convergence. Then, the final step is to link the changes in value relevance with industry relatives. Moreover, two database systems – Data-stream and China Stock Market & Accounting Research (CSMAR) were employed in this study to achieve meaningful statistical data analysis in quantitative research. Through a cross-comparison of the AH- shares' listing published on the official websites of the Mainland China and

Hong Kong stock markets, 20 cross-listed Chinese firms are finally identified, with a total of 280- firm observations from 2000 to 2013.

Figure 5.1 below shows the stages in conducting the study process from the literature review to the conclusion.

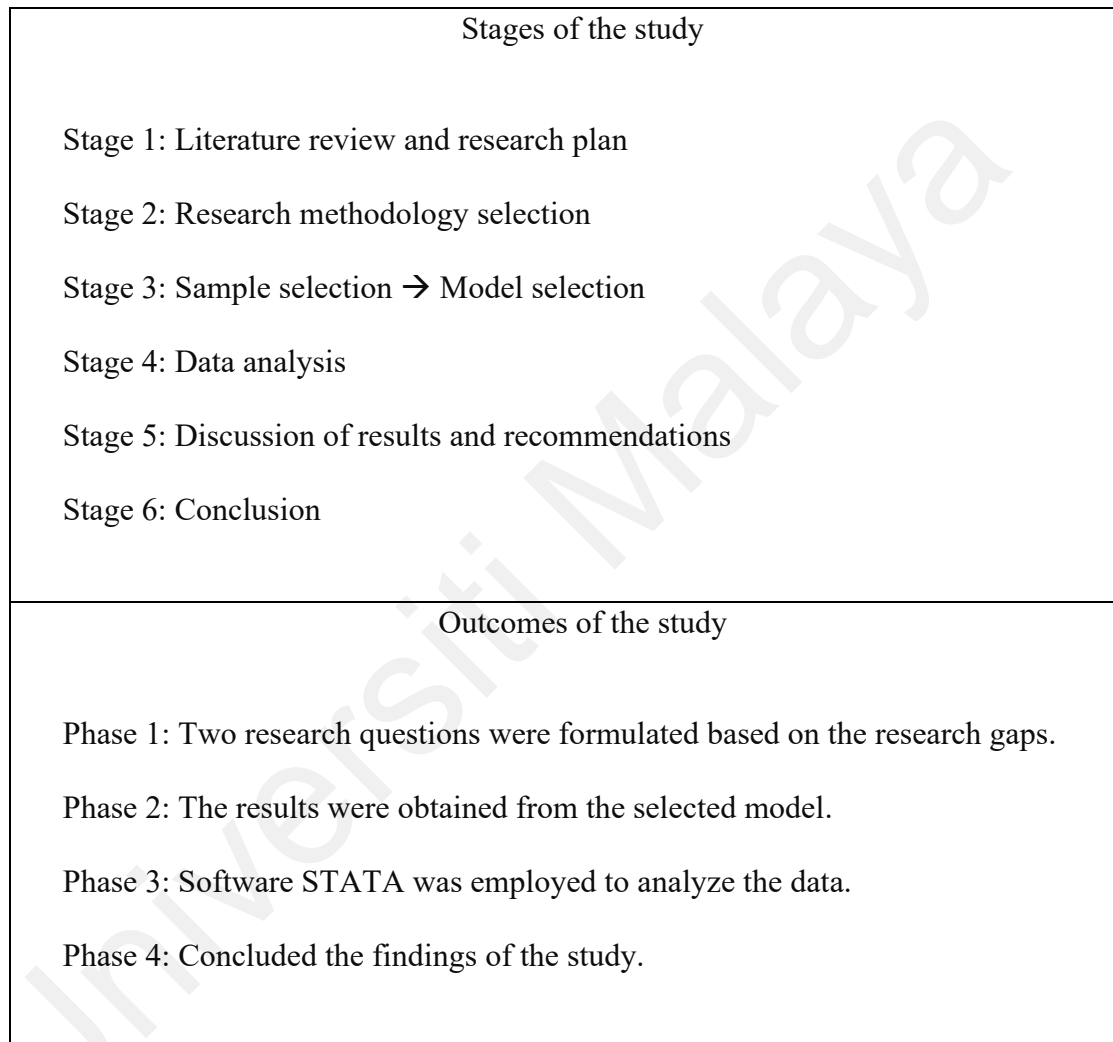


Figure 5.1: The Process of the Study

The first stage included a comprehensive literature review, primarily from the perspective of IFRS adoption in the European Union and Mainland China. The literature review process helps the researcher to identify the research gaps and define the research objectives and questions, as well as the research scope. Then it inspired the research plan, including the appropriate theories, theoretical framework and variables used in the study.

The research methodology was established in the second stage to explore an appropriate research method that is suitable for the study. It mainly includes the way how this study is conducted. In the third stage, the study selected 20 cross-listed Chinese firms as the research sample. Besides, it is also worth noting that the price model used for the study has been widely accepted by previous studies after considering the control variables. After that, the data was entered into the software STATA 16 for further analysis in the fourth stage. The findings and recommendations would be elaborated in the fifth stage. Finally, a summary chapter is made to demonstrate all the main points and contributions of the study.

Furthermore, to expand the research of Elshandidy (2014), this study includes cross-listed firms, which helps determine the changes in value relevance of accounting information more clearly. Although previous studies have examined the value relevance of accounting information in China, there is still a need for research on the Chinese cross-listed firms. Thus, it is meaningful and urgent to explore this topic, given the unique attribute of “one country, two systems.” Besides, it is also equally important to examine the institutional factors surrounding a country’s financial reporting system. Therefore, this study uses the Worldwide Governance Indicators to measure institutional factors, and relevant explanations are introduced in the following section.

5.3 Operationalization

5.3.1 The Dependent Variable

The research model used in this study is derived from the study of Ohlson (1995), which expresses the value relevance of accounting information as a statistical relationship between stock price and accounting information. In relation to the measurement of the stock price, there has been a large debate among academics regarding the methods of calculating its value. In fact, there are two methods: (1) The “average stock price”, which

is calculated as the total market capitalization divided by its total number of outstanding shares at the year-end (Kahle, 2002); and (2) the “daily stock price”, which is the mean between the daily highest and lowest values on a given trading day. In this study, the average stock price is used because it is more convincing compared to other stock price measurement methods (i.e., daily stock price) and represents the average annual trading volume. Moreover, these stock prices are generated from both the Mainland China and Hong Kong stock markets for the same cross-listed firms.

Even if the stock price cannot be found in the China Stock Market & Accounting Research Database (CSMAR), the study can still export it from Thomson Reuters Datastream. That is the reason why these two database systems were used together to conduct this study. CSMAR is a specific database system for academics to study China’s economics. In comparison, Thomson Reuters DataStream is a world's leading database system for researchers to study global economics. In addition, there are many academics (Beck, Demirgüç-Kunt, & Levine, 2010; Chinn & Ito, 2006; Iatridis, 2010; Kahle, 2002) explore the changes of value relevance with either one of these two databases.

5.3.2 The Independent Variables

The impact of IFRS convergence on accounting information may reflect by two main accounting variables – the book value per share (BVPS) and net income per share (EPS). The book value per share is calculated as weighting the shareholder’s equity by the total number of outstanding shares (Jensen, Johnson, & Mercer, 1997). The net income per share (EPS) is calculated based on the earnings after interest and taxes that is allocated to each of its outstanding shares (Hoque, Consler, Lepak, & Havranek, 2011). Additionally, both measurements of independent variables used in the study have been defined as the most common accounting variables for valuing the dependent variable (stock price), as mentioned in the earlier chapter.

Consistent with the methodology adopted in Chalmers et al. (2011) and Iatridis (2010), this study uses a dummy variable to distinguish pre- and post- IFRS convergence period. Therefore, the comparison of the financial reporting standards is categorized into two equal time periods and represented by the dummy variables in STATA: (1) “Pre- IFRS convergence period”, a dummy variable that is coded “0” and covers the years from 2000 to 2006. (2) “Post- IFRS convergence period” is another dummy variable that is coded “1” and covers the subsequent period from 2007 to 2013.

5.3.3 The Moderating Variables

A moderating variable is the third variable that affects the strength of the relationship between accounting information and stock price. Previous studies reported that diversity in accounting practices occurred because of patterns in different institutional contexts. Therefore, the study uses six dimensions of Worldwide Governance Indicators¹⁴ to measure the impact of institutional factors on the value relevance of accounting information. This WGI is developed from an extensively researched governance dimension.

In recent years, with a rich setting for comparative political analysis, the set of combined governance indexes has become popular among many researchers (Langbein & Knack, 2010). As early in 1995, Transparency International has accumulated relevant index from numerous sources to reduce the measurement error of institutional indicators. This index includes survey results from firms’ executives and expert opinions. Based on that, by exploiting full and comprehensive data sources, the World Bank researchers proposed an improved six dimensions indexes – the Worldwide Governance Indicators, which comprises of six dimensions, namely: 1) Voice and Accountability, 2) Political

¹⁴ This WGI is available from the following website: <https://info.worldbank.org/governance/wgi>.

Stability and Absence of Violence/Terrorism, 3) Government Effectiveness, 4) Regulatory Quality, 5) Rule of Law, and 6) Control of Corruption.

The sources of the Worldwide Governance Indicators are diversified. According to Kaufmann et al. (2011), the Worldwide Governance Indicators are produced based on 340 variables obtained from more than 30 sources, which includes the data from surveys of firms, households, public sector organizations, non-government organizations and commercial information providers. Prior studies (Kaufmann, Kraay, & Mastruzzi, 2009, 2010) showed that the aggregate six dimensions indexes are more informative than any other single data sources.

Although some missing values exist, the WGIs are formed based on the data set that is in global coverage. Moreover, it allows the calculation of the error margins of the estimated indicators (Thomas, 2010). Therefore, the six dimensions of WGIs has been widely adopted for measuring the institutional factors. For example, Das and Andriamananjara (2006) used the Worldwide Governance Indicators to explore the institutional quality. Dassah (2015) used it as a tool to measure the governance quality as well. More recently, Sadaf, Oláh, Popp, and Máté (2018) adopted this index to investigate the influence of governance quality on accounting fraud.

Following the previous studies, this study chooses the Worldwide Governance Indicators as the proxy to examine the impact of institutional factors on the value relevance of accounting information. Besides, it is worth noting that the data of Worldwide Governance Indicators are constantly updated every year. Therefore, the study downloaded relevant data from the official excel database of the Worldwide Governance Indicators for both Mainland China and Hong Kong from 2000 to 2013 (Table 5.1)

Table 5.1: Worldwide Governance Indicators for both Mainland China and Hong Kong from 2000 – 2013

Worldwide Governance Indicators from 2000 – 2013						
Year	Voice and Accountability		Political Stability and Absence of Violence/Terrorism		Government Effectiveness	
	Mainland China	Hong Kong	Mainland China	Hong Kong	Mainland China	Hong Kong
2000	-1.38	-0.01	-0.21	+0.93	-0.11	+1.33
2001	-1.49	+0.09	-0.27	+0.92	-0.08	+1.36
2002	-1.59	+0.19	-0.33	+0.91	-0.06	+1.39
2003	-1.51	+0.45	-0.56	+0.95	-0.08	+1.65
2004	-1.46	+0.56	-0.39	+1.15	-0.06	+1.76
2005	-1.50	+0.62	-0.50	+1.34	-0.12	+1.61
2006	-1.75	+0.51	-0.54	+1.19	+0.07	+1.91
2007	-1.72	+0.48	-0.50	+1.10	+0.18	+1.87
2008	-1.70	+0.45	-0.49	+1.13	+0.15	+1.86
2009	-1.70	+0.48	-0.45	+0.97	+0.09	+1.74
2010	-1.68	+0.51	-0.66	+0.94	+0.09	+1.68
2011	-1.64	+0.57	-0.60	+0.95	+0.09	+1.65
2012	-1.64	+0.64	-0.54	+1.01	+0.02	+1.83
2013	-1.63	+0.73	-0.54	+0.92	+0.00	+1.75

Year	Regulatory Quality		Rule of Law		Control of Corruption	
	Mainland China	Hong Kong	Mainland China	Hong Kong	Mainland China	Hong Kong
2000	-0.34	+1.83	-0.53	+0.82	-0.22	+1.34
2001	-0.43	+1.78	-0.51	+1.06	-0.37	+1.53
2002	-0.51	+1.73	-0.50	+1.29	-0.52	+1.71
2003	-0.33	+1.93	-0.53	+1.57	-0.36	+1.85
2004	-0.31	+1.96	-0.53	+1.59	-0.56	+1.87
2005	-0.15	+1.79	-0.59	+1.61	-0.61	+1.78
2006	-0.20	+1.94	-0.64	+1.55	-0.51	+1.87
2007	-0.17	+1.98	-0.54	+1.53	-0.59	+1.92
2008	-0.15	+1.95	-0.42	+1.49	-0.52	+1.90
2009	-0.22	+1.82	-0.41	+1.50	-0.51	+1.89
2010	-0.23	+1.88	-0.41	+1.54	-0.56	+1.96
2011	-0.22	+1.78	-0.46	+1.55	-0.51	+1.85
2012	-0.24	+1.95	-0.54	+1.58	-0.44	+1.74
2013	-0.29	+1.93	-0.52	+1.57	-0.36	+1.64

(Data source: World Bank)

There are two methods to report the six dimensions of the Worldwide Governance Indicators. On the one hand, it ranges from -2.5 (weak governance performance) to 2.5

(strong governance performance) in their standard normal units. On the other hand, it can also score from 0 (lowest) to 100 (highest) in percentile rank terms (Kaufmann et al., 2011). This study uses the first methods to report the scores of the Worldwide Governance Indicators because the sign “+” and “-” could more intuitively reflect the difference between Mainland China and Hong Kong.

In Table 5.1, Hong Kong’s scores have a positive “+” in most of the dimensions, and they have increased steadily from 2000 to 2013. Impressive progress has been made on the dimension of Voice and Accountability (from -0.01 in 2000 to +0.73 in 2013), Government Effectiveness (from +1.33 in 2000 to +1.75 in 2013), Regulatory Quality (from +1.83 in 2000 to +1.93 in 2013), Rule of law (from +0.82 in 2000 to +1.57 in 2013) and Control of Corruption (from +1.34 in 2000 to +1.64 in 2013). However, compared with other dimensions, the growth of Political Stability and Absence of Violence/Terrorism from 2000 to 2013 was relatively lower, which was from +0.93 in 2000 to +0.92 in 2013. One explanation for this phenomenon is that Hong Kong just completed the transition from the territorial status of the United Kingdom to the communist regime in 1997 (Huque & Jongruck, 2018). This transition means the end of British control over Hong Kong. In other words, it also raised concerns about the transition of the regime because Hong Kong has a unique context due to the principle of “One country, two system” as mention earlier.

In comparison, Mainland China’s scores have a negative “-” in most of the dimensions. The scores of Voice and Accountability decreased from -1.38 in 2000 to -1.63 in 2013. Political Stability and Absence of Violence/Terrorism decreased from -0.21 to -0.54. Government Effectiveness increased from -0.11 to 0.00. Regulatory Quality increased from -0.34 to -0.29. Rule of law increased from -0.53 to -0.52 and Control of Corruption decreased from -0.22 to -0.36, respectively. The primary reason why the scores of

Mainland China are lower than that of Hong Kong is that Mainland China is a developmental state. On the contrary, Hong Kong was a subsidiary territory of the United Kingdom before 1997.

5.3.4 The Control Variables

In addition to the IFRS and institutional factors, there are many other financial factors that affect the value relevance of accounting information. Prior literature showed that firm's characteristics such as profitability, growth, investment, liquidity, leverage, and market reactions are closely associated with the value relevance of accounting information (Easton, 1999; Iatridis, 2010). Therefore, this study uses control variables to reduce the impact of variable bias.

The first control variable is the firm size, which is used to control omitted variables at the firm size level and measured as the natural logarithm of total assets (Chalmers et al., 2010; Iatridis, 2010). It reflects the complexity of a firm's resources. As we all know that a larger firm is more capable of affecting or being affected by the institutional environment than a smaller firm. Also, the value relevance of accounting information in larger firms is proven to be higher than that of small firms (Brimble & Hodgson, 2007). Therefore, it is necessary for this study to control the firm size.

The second control variable is the firm's liquidity, which is used to control the effects of firms' ability to pay their short-term financial obligations (Iatridis, 2010). It determines the short-term firm's solvency and is calculated by dividing the working capital by the total assets. In addition, this variable has been confirmed to have a negative impact on the stock return (Dimitropoulos & Asteriou, 2009). Therefore, the study controls the effects of firms' liquidity.

The third control variable is the cash flow, which is used to control the potential effects of a firm's cash flow, such as treasury bills, commercial paper, and money market funds. A preponderance of prior studies (Barth, Beaver, Hand, & Landsman, 1999; Chalmers et al., 2010; Cheng, Chao-Shin, & Schaefer, 1997) suggested that the firms' cash flow had a direct impact on the value relevance of accounting information. Therefore, the study also controls the effects of cash flow.

Moreover, many studies reported that there is an apparent relationship between firms' information disclosure and enterprise value (Dang, Vu, Ngo, & Hoang, 2019; Liu & Zhang, 2017; Rosenbaum & Pearl, 2013). Therefore, this study introduced the fourth control variable – enterprise value, to control the effect of information disclosure. In fact, it generally reflects a firm's ability to return all stakeholders (including government, creditors and shareholders) satisfying profits under value-centered management and the rule of law. In addition, it is a measure of a firm's total value.

The last control variable is the Tax Complement, which is used to control the effects of taxation. It represents the amount of net income after the deduction of income taxes. Taxation may have a particular impact on accounting information measurement. In some countries, it effectively reflects how financial reporting is produced. For instance, the value relevance of accounting information is lower when tax regulation has a significant impact on accounting information measurement (Ali & Hwang, 2000).

5.3.5 Operationalization of Variables

In this section, the study examined the variables used in the regression including the dependent variable (stock price), independent variables (book value per share and net income per share), moderating variables (six dimensions of WGIs, namely the voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption.) and control

variables (firm size, firm's liquidity, cash flow, enterprise value and tax complement). In addition, this section also summarizes the variables used in the study (see Table 5.2).

Table 5.2: Operationalization of Variables

Variable (s)	Symbols	Operationalization	Previous Literature
<i>Dependent Variables</i>			
Stock Price	$P_{i,t}$	$= \frac{\text{Total market capitalization}}{\text{Total number of outstanding shares at the year end.}}$	Kahle (2002), Beck et al. (2010), Chinn and Ito (2006), Iatridis (2010).
<i>Independent Variables</i>			
Book value per share	$BVPS_{i,t}$	$= \frac{\text{Total book value of equity}}{\text{Total number of outstanding shares at the year end.}}$	Jensen et al. (1997), Chalmers et al. (2011) and Iatridis (2010).
Net income per share	$EPS_{i,t}$	$= \frac{\text{Total net income}}{\text{Total number of outstanding shares at the year end.}}$	Hoque et al. (2011), Chalmers et al. (2011) and Iatridis (2010).
<i>Moderating Variables</i>			
Voice and accountability	WGI1	WGI1 is obtained directly from the World Bank's WGI index	Kaufmann et al. (2009), Das and Andriamananjara (2006), Dassah (2015) and Sadaf et al. (2018).
Political stability and absence of violence/terrorism	WGI2	WGI2 is obtained directly from the World Bank's WGI index	
Government effectiveness	WGI3	WGI3 is obtained directly from the World Bank's WGI index	
Regulatory quality	WGI4	WGI4 is obtained directly from the World Bank's WGI index	
Rule of law	WGI5	WGI5 is obtained directly from the World Bank's WGI index	
Control of corruption	WGI6	WGI6 is obtained directly from the World Bank's WGI index	
<i>Control Variables</i>			
Firm size	$InTA$	Is calculated as the natural logarithm of total assets	Chalmers et al. (2010).
Firm's liquidity	$RWCTA$	Is calculated by dividing the working capital by the total assets.	Iatridis (2010).
Cash flow	$SCSI$	The amount of cash flow at the year end.	Barth et al. (1999).
Enterprise value	Ev	The amount of enterprise value at the year end.	Dang et al. (2019).
Tax complement	$RTAXC$	The amount of net income after the deduction of income taxes	Ali and Hwang (2000).

5.4 Empirical Models

Before choosing the empirical model for testing the value relevance of accounting information, several methods were considered. This section will briefly explain some research methods that could be used to conduct this topic. Many studies (Albu, Albu, Bunea, Calu, & Girbina, 2011; Nie et al., 2013; Sucher & Jindrichovska, 2004) have explored the impact of IFRS convergence through the interview, which is the most common method applied in qualitative research (Cassell & Symon, 2004). The interview allows researchers to gather rich information and conduct study through open-ended questions (Saunders, Lewis, & Thornhill, 2009). It also helps researchers to understand how IFRS convergence affects the development of national accounting standards. However, this method may not be suitable for capturing and documenting numerical changes in accounting studies using statistical methods. Therefore, this study used an accounting-based model to evaluate the changes in the value relevance of accounting information of Chinese cross-listed firms.

In fact, there are three accounting-based value relevance models, namely the earnings capitalization, book value, and price model. Specifically, the price model integrates the earnings capitalization with book value to comprehensively measure the value relevance of accounting information. Many studies adopted these three models when testing the value relevance of earnings (Cahan et al., 2009; Haw et al., 1999), book value per share (Clarkson et al., 2011) or use the price model to test the value relevance of accounting information (Chalmers et al., 2011; Iatridis, 2010). All these three models are constructed based on the concept that a firm's market capitalization is equal to its discounted future cash flows (Ashbaugh & Olsson, 2002). Also, due to the lack of a standard statistical approach for measuring the value relevance, the estimation results of this kind of studies may vary because of different models used. Since the focus of the study is on the

relationship between the stock price, earnings, and book value per share. Therefore, the price model is more appropriate in this case.

The first objective of the study is to measure to what extent the IFRS convergence could affect the value relevance of accounting information in valuing AH- shares since the enactment of ASBE 2006. Therefore, this study developed the model 1. It is used to measure the explanatory power R^2 , the coefficients obtained from the ordinary least squares (OLS) regression of stock price on book value per share and net income per share. This model is based on the study of Feltham and Ohlson (1995), which stated that the changes of value relevance of accounting information can be measured using a linear regression model. The empirical models are as follows, following the models presented in these studies (Barth et al., 2008; Harris, Lang, & Möller, 1994; Hung & Subramanyam, 2007; Lang, Lins, & Miller, 2003; Manganaris et al., 2016; Vafaei, Taylor, & Ahmed, 2011).

Model 1:
$$P_{i,t} = a_0 + a_1BVPS_{i,t} + a_2EPS_{i,t} + a_3CVs + e_{i,t}$$

Where,

- $P_{i,t}$ Is calculated by the total market capitalization divided by its total number of outstanding shares at the year-end.
- $BVPS_{i,t}$ Is calculated by the total book value of equity deflated by the number of shares outstanding.
- $EPS_{i,t}$ Is calculated by the total net income deflated by the number of shares outstanding.
- CVs Are the control variables, include the firm size (Chalmers et al., 2010), firm's liquidity (Iatridis, 2010), cash flow (Barth et al., 1999), enterprise value (Dang et al., 2019), and tax complement (Ali and Hwang, 2000).
- $e_{i,t}$ Is the error term,

This price model focuses on how book value per share (BVPS) and earnings per share (EPS) are reflected in the stock price (Pit). The explanatory power R^2 reflects the strength of the relationship between the accounting variables and stock price. The response coefficients a_1 and a_2 in the model indicate the sensitivity of stock price to earnings per

share and book value per share. $P_{i,t}$ reflect the intrinsic value of firm i at the valuation date t , $BVPS_{i,t}$ is the firm i 's book value per share at the valuation date t , $EPS_{i,t}$ is the firm i 's earnings per share at the valuation date t . When testing hypothesis H₁, the firm-year observations from the period of 2000 to 2013 are regressed. The degree of the value relevance of accounting information is considered improved when the coefficients and explanatory power R^2 from the post-IFRS convergence period are better and significantly changed compared to that from the pre-IFRS convergence period.

The second objective is to explore the impact of institutional factors on the value relevance. Therefore, when testing the impact of institutional factors, the Worldwide Governance Indicators are adopted in regression analysis, following the approach used by Manganaris et al. (2016) and Vafaei et al. (2011). Model 2 is formulated below to examine the impact of institutional factors on the value relevance of accounting information.

$$\text{Model 2: } P_{i,t} = a_0 + a_1 BVPS_{i,t} + a_2 EPS_{i,t} + a_3 WGIs_{i,t} + a_4 BVPS_{i,t} * WGIs_{i,t} + a_5 EPS_{i,t} * WGIs_{i,t} + a_6 CVs + e_{i,t}$$

Where,

- $P_{i,t}$ Is calculated by the total market capitalization divided by its total number of outstanding shares at the year-end.
- $BVPS_{i,t}$ Is calculated by the total book value of equity deflated by the number of shares outstanding.
- $EPS_{i,t}$ Is calculated by the total net income deflated by the number of shares outstanding.
- $WGIs$ Is the score of the six dimensions of Worldwide Governance Indicators
- CVs Are the control variables, include the firm size (Chalmers et al., 2010), firm's liquidity (Iatridis, 2010), cash flow (Barth et al., 1999), enterprise value (Dang et al., 2019), and tax complement (Ali and Hwang, 2000).
- $e_{i,t}$ Is the error term,

In Model 2 created above, $WGIs$ is the Institutional factors that refer to the Worldwide Governance Indicators, including voice and accountability, political stability and absence

of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption as mentioned earlier. The impact of institutional factors on the value relevance is presented as $BVPS_{i,t} * WGIS_{i,t}$, $EPS_{i,t} * WGIS_{i,t}$. Coefficients for these interaction variables are the most important figure in this model. α_4 and α_5 indicate the degree of how these institutional factors affect the value relevance.

5.5 Data Collection

In this study, the research is conducted based on secondary data. The study starts with an initial sample of 51 cross-listed firms listed on both the Shanghai and Hong Kong Stock Exchanges from the year 2000 to 2013. The choice for the study period of fourteen years (2000 to 2013) is deliberately made because it enables the researcher to examine the changes of value relevance of accounting information over an equal period for the pre- and post- IFRS convergence. In addition, the choice of the duration of the study also takes into consideration the development of accounting standards in Mainland China and Hong Kong. Specifically, the study period of fourteen years covers the last two sets of ASBE, which are commonly referred to as the ASBE versions in 2001 and 2006, respectively. Therefore, the study divided the investigation period into two equally long periods. The first period of the years 2000-2006 represents the pre-convergence period when the ASBE 2001 was applied. The second period of the years 2007 to 2013 represents the post-convergence period when the ASBE 2006 was applied.

The selection of these two equally periods aims to make the study more comparable. Therefore, firms listed on or after the year 2001 were excluded. Because if the firm listed on or after that time, the period-period comparison would not be able to make. For instance, the audited accounting information can only be generated from 2001 to 2013. It means that the first period is six years while the second period is seven years. Obviously, the length of time between these two periods is unbalanced. In addition, Chinese cross-

listed firms are required to issue corresponding annual financial reporting based on different versions of ASBE. Therefore, it can be expected that the value relevance of accounting information is likely to be different during these two ASBE periods.

Table 5.3: The List of Firms

<i>No.:</i>	Firm name	Country	Industry
1.	Huaneng Power International Inc	China	Electric Utilities & IPPs
2.	Anhui Expressway Co Ltd	China	Transport Infrastructure
3.	COSCO Shipping Energy Transportation Co Ltd	China	Freight & Logistics Services
4.	China Petroleum & Chemical Corp	China	Oil & Gas
5.	China Eastern Airlines Corp Ltd	China	Passenger Transportation Service
6.	Yan Zhou Coal Mining Co Ltd	China	Coal
7.	Guangzhou Bai Yunshan Pharmaceutical Holdings Co Ltd	China	Pharmaceuticals
8.	Jiangxi Copper Co Ltd	China	Metals & Mining
9.	Jiangsu Expressway Co Ltd	China	Transport Infrastructure
10.	Shenzhen Expressway Co Ltd	China	Transport Infrastructure
11.	Anhui Conch Cement Co Ltd	China	Construction Materials
12.	Tsingtao Brewery Co Ltd	China	Beverages
13.	CSSC Offshore & Marine Engineering Group Co Ltd	China	Machinery, Tools, Heavy Vehicles, Trains & Ships
14.	Sinopec Shanghai Petrochemical Co Ltd	China	Oil & Gas
15.	Nanjing Panda Electronics Co Ltd	China	Electronic Equipment & Parts
16.	Beijing Jing Cheng Machinery Electric Co Ltd	China	Machinery, Tools, Heavy Vehicles, Trains & Ships
17.	Sinopec Oilfield Service Corp	China	Oil & Gas Related Equipment and Services
18.	Tianjin Capital Environmental Protection Group Co Ltd	China	Water & Related Utilities
19.	Dong fang Electric Corp Ltd	China	Machinery, Tools, Heavy Vehicles, Trains & Ships
20.	Luoyang Glass Co Ltd	China	Homebuilding & Construction

The firm list used to test the hypotheses was collected from the official website of both the Shanghai and Hong Kong Stock Exchanges. This list is presented in Table 5.3 above. Accordingly, firms' specific data such as stock price, book value per share, earnings per share, beginning/ending stock price, number of shares outstanding were hand-collected from the Data-stream and CSMAR. Moreover, institutional factors such as Voice and

Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption were downloaded from the official website of the World Bank as mentioned earlier.

Table 5.4 presents the data selection process, which illustrates how the 20 Chinese cross-listed were selected for the years from 2000 to 2013. Following the practices of most accounting-based research, the sample excludes financial institutions owing to the different accounting treatments used in these firms. Besides, only firms with available data are included in the study. This is further elaborated below.

5.5.1 Data Collection Process

The data collection process of the study was initiated through the identification of cross-listed firms (AH- shares). This data-list was gathered from two resources: official websites and databases from the years 2000 to 2013. Firstly, this study selected all A-share listed firms from 2000 to 2013, and cross-compared these selected firms with H-share over the same period. Then, 51 Chinese cross-listed firms were initially selected based on this cross-comparison.

Secondly, the study compared these 51 Chinese cross-listed firms with similar existing literature to ensure their correctness and quality. Fortunately, these selected firms are consistent with the research sample in Chung, Hui, & Li (2013) who selected 44 cross-listed firms for studying the stock price disparity with parameter uncertainty over the years from 2000 to 2006. Also, they are roughly matched with the study of Zhang and Ye (2020), who selected 50 cross-listed firms for exploring the effectiveness of IFRS convergence in China. The relevant data of accounting variables needed for OLS regression would be gathered from the Data-stream and CSMAR once the list of cross-listed firms was identified.

Table 5.4: Sample Selection Process

Category	Number of Observations (N)
Year period	2007-2013
<i>AH- shares</i>	
Initial sampling in both the CSMAR and DataStream	714 (51 firms)
Step 1: Excludes the financial institutions	84 (6 firms)
Step 2: Excluding firms with missing data	350 (25 firms)
Firm observation/firms	280 (20 firms)

As shown in Table 5.4, the initial 51 AH shares were selected for this study, and it is worth noting that only the mainboard listed firms were included. This study excluded Growth Enterprise Market, a NASDAQ-style subsidiary of the Mainland Stock market because most of the firms from Growth Enterprise Market are small and medium-sized enterprises (SMEs).

Initially, the study reached a total of 714 firm-year observations (51 firms), which aims to do a comparing analysis of two consecutive 7-year periods for exploring the changes in the value relevance. Then, six financial firms (84 firm-year observations) were excluded because the accounting treatments that are applied for financial sector do not have the same meaning as for non-financial sectors (Liu & Liu, 2007). Then, 25 firms with 350 observations were excluded because of the missing data. Finally, the remaining 20 AH-share firms (280 firm observations) were selected for testing the hypotheses in this study.

5.5.2 Industry Distribution

The study further divided the 280 firm observations as tabulated in Table 5.4 above into High- and Low- tech industries according to the Standard Industrial Classification in Appendix B, following the study of Francis and Schipper (1999). The final sample distribution classified by the industry relatives is presented in Table 5.5. It shows that, for

AH-shares, each industry is represented by one firm except Machinery, Tools and Heavy Vehicles, Oil, and Transport Infrastructure, which are represented by three firms.

Previous studies used this Standard Industrial Classification to explore whether financial statements of high-technology shares are less value relevant than those of other firms (Francis & Schipper, 1999), or investigate the relationship between accounting standards and value relevance of financial statement (Hung, 2000). By categorizing the firms into the below industry relatives instead of one group, the findings of the study would be more generalizable.

Table 5.5: Industry Distribution

Industry	Type	% of the sample	No. of firm
<i>AH- shares</i>			
Electric Utilities			1
Electronic Equipment	High-Tech	15.00%	3
Pharmaceuticals			1
Beverages			1
Coal			1
Construction Materials			1
Freight			1
Homebuilding			1
Machinery, Tools, Heavy Vehicles	Low-Tech	85.00%	17
Metals			1
Oil			3
Passenger Transportation Services			1
Transport Infrastructure			3
Water			1
Total			20

5.6 Data analysis

Data analysis is the process that describes, explains, summarizes, and evaluates the data by applying systematically statistical or logical techniques (Van Gog et al., 2007). Accordingly, the following sections demonstrate the descriptive analysis, multivariate analysis, and panel data analysis for the study.

5.6.1 Descriptive Analysis

It is necessary to conduct a descriptive analysis before performing the Ordinary Least Squares (OLS) regression. Descriptive analysis is a method used to summarize the information provided by the numerical values. Also, it is worth noting that data outliers must be identified as early as possible. Otherwise, the reliability of the result would be drastically affected. For these reasons, the descriptive statistics were performed for examining each variable used in the study.

The first objective of the study is to make a comparative analysis of two consecutive 7-year periods to examine the changes of the value relevance pre-and post- IFRS convergence. A paired sample t-test was used, which provides univariate descriptive statistics through mean comparison, sample size, standard deviation, and standard error for dependent and independent variables. In fact, this test aims to investigate the difference between two variables from the same population pre- and post- test score (Kim, 2015). Moreover, Chalmers et al. (2010) used a paired sample t-test to explore the changes of accounting data pre and post- 2001 China accounting reforms. They found that most of the accounting data from post- ASBE are higher than that from pre- ASBE.

5.6.2 Multivariate Analysis

This study adopted a quantitative methodology because it has been widely used in previous studies (Chalmers et al., 2010; Elshandidy, 2014; Iatridis, 2010; Lam, Sami, & Zhou, 2013) to test the changes in the value relevance of accounting information. It assumes that the analysis fits a model of the relationship between accounting data and stock price.

Besides, the study also aims to explore the impact of institutional factors on the value relevance of accounting information. Therefore, it introduced the multivariate analysis, which serves as a tool to analyze whether there are three or more variables affect this

relationship (Rencher, 2003). In this study, it means these moderating effects may occur when the relationship between accounting data and stock price are statistically affected by institutional factors. Also, adding interaction variables into the OLS regression model can greatly expand the understanding of the relationship between accounting data and stock price as well as the impact of institutional factors. Then, it becomes a multiple regression model, which regresses the dependent variable (stock price) on the $BVPS_{i,t} * WGIS_{i,t}$, $EPS_{i,t} * WGIS_{i,t}$, accounting variables (independent variables) and $WGIS_{i,t}$.

5.6.3 Panel Data Analysis

Panel data analysis is a statistical tool that has been widely used in social sciences, accounting, and economics, either cross-sectional or longitudinal panels (Yaffee, 2003).

It can be statistically estimated by two models: the fixed-effects model and the random-effects model. The fixed-effects model is in a situation where one or more treatments have been used on the experimental subjects to see how the response variables change. If these treatments are fixed, then the fixed-effect model is applied (Allison, 2009). On the contrary, the random-effects model is applied when the treatments are not fixed (Raudenbush, 1994). Therefore, the study used a series of statistical tests to identify which model is suitable for the study, including the F-test and the Hausman specification test. In addition, the panel data unit root test was also adopted to reduce the effects of spurious regression for the study.

5.6.4 Data Analysis Linked to Research Questions

Table 5.6 summarizes each type of statistical analysis for hypothesis developed based on the research questions. It covers the research questions, variables, hypotheses, and type of analysis. The data collected from Thomson Reuters Data-stream and CSMAR were analyzed using the STATA 16.

Table 5.6: Statistical Analysis Based on the Research Questions

Research Questions		Variables	Hypotheses	Type of Analysis
Research question 1	IV:	Stock price	H ₁ : H _{1a}	1. Paired sample t-test for variables used in the study 2. OLS regression (Fixed effect)
	DV:	Book value per share Earnings per share		
	CV:	Firm Size, Firm's Liquidity, Cash flow, Enterprise value, Tax Complement		
Research question 2	IV:	Stock price	H ₂ : H _{2a} H _{2b}	1. Testing the significance of interactions by using moderated multiple regression
	DV:	Book value per share Earnings per share	H _{2c} H _{2d}	
	MOV:	Worldwide Governance Indicators	H _{2e}	
	CV:	Firm Size, Firm's Liquidity, Cash flow, Enterprise value, Tax Complement	H _{2f}	

Note: DV: Dependent Variable; IV: Independent variable; MOV: Moderating Variable;

CV: Control Variables

5.7 Chapter Summary

It is critically important to select an appropriate research methodology to obtain reliable and meaningful research results. Because the research result is significantly affected by the type of research method chosen, the empirical model used, and the type of data collected, therefore, this chapter provides a brief outline of how the study would be conducted.

Firstly, this chapter describes the process of the methodology selection and the reason why the longitudinal research method is chosen. Secondly, the empirical model was selected based on previous research (e.g., Feltham & Ohlson 1995) to test the two sets of hypotheses H₁ and H₂. Thirdly, The Worldwide Governance Indicators was introduced in the chapter, including the scoring methods of the Worldwide Governance Indicators, how

it would be used in this study, and why the Worldwide Governance Indicators' scores differ between Mainland China and Hong Kong.

Fourthly, this chapter presents the process of how data was collected based on the two research questions. Besides, the study also included the industry distribution of firms selected based on the Standard Industrial Classification. The next chapter presents the empirical analysis from AH- shares data.

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CHAPTER 6: DATA ANALYSIS AND RESULTS

6.1 Overview

The purpose of this chapter is to comprehensively describe the research findings obtained from the analysis process. The process of data collection is presented in Section 6.2, which includes detailed information on stock price (Pit), book value per share (BVPS), earnings per share (EPS), and control variables. Section 6.3-6.4 introduces a series of statistical tests, which are specifically selected for ensuring the correctness of panel data, i.e., Harris-Tzavalis (HT) test, F- test, and Hausman test. Section 6.5 presents the correlation coefficients for relations amongst two accounting variables, stock price, six dimensions of Worldwide Governance Indicators and five control variables. In both Section 6.6 and 6.7, the study shows the primary analysis process, which consists of the paired sample t-test, the OLS regression for AH shares and the multiple regression model for testing the impact of institutional factors on the value relevance of accounting information.

The first part of the chapter is to examine the first hypothesis H1a, which aims to explore the changes in the value relevance of accounting information pre- and post- IFRS in AH- shares. Specifically, in section 6.6.1, the results obtained from the paired sample t-tests show that the difference in the means of accounting variables pre- and post-IFRS convergence. In Section 6.6.2, an OLS regression was employed to measure the changes in explanatory power R^2 and coefficients for in-depth analysis of the impact of IFRS convergence. The second part (Section 6.7) is to test the second set of hypotheses, which aims to examine the impact of institutional factors on the value relevance of accounting information. The study also introduces interaction variables into the OLS regression. In addition, the final section (Section 6.8) of the chapter presents a summary of the research findings for both Mainland China and Hong Kong stock markets.

6.2 Descriptive Statistics for Variables Used in This Study

As detailed in Chapter 5 Research Methodology, this study uses a longitudinal research method to explore the changes in the value relevance of accounting information. Accordingly, a total of 20 AH- share firms was selected for the study with a period from 2000 to 2013. Descriptive statistics of accounting variables for both Mainland China and Hong Kong are presented in Table 6.1.

Table 6.1: Descriptive statistics

Panel A: Full sample period: 2000-2013					
Variables	Observation	Mean	Std.Dev.	Min	Max
<i>Mainland China (A-shares)</i>					
Stock price -Pit	280	8.939903	10.27256	.1044869	83.30453
Book value per share -Bvps	280	3.556086	2.894723	-1.219497	23.42071
Earnings per share - EPS	280	.3617857	0.5840856	-2.85	3.67
<i>Moderating Variables</i>					
WGI1	280	-1.600106	.107997	-1.74897	-1.384081
WGI2	280	-.4700416	.124052	-.6570607	-.208934
WGI3	280	.0136133	.0966611	-.1199866	.1827777
WGI4	280	-.2718829	.1011899	-.513172	-.1500192
WGI5	280	-.5097398	.0641178	-.6394754	-.4070508
WGI6	280	-.4739255	.1069535	-.6087338	-.2182887
<i>Control Variables</i>					
Firm Size	280	16.47885	1.535362	12.19792	21.32398
Firm's Liquidity	280	.0130357	.1817332	-.6	.45
Cash flow	280	3393141	5313481	51839	4.15e+07
Enterprise value	280	6.77e+07	1.83e+08	-42376.09	2.03e+09
Tax Complement	280	.8579283	.8542963	-1.91	13.79
<i>Hong Kong (H-shares)</i>					
Stock price -Pit	280	9.121818	10.11003	.1044869	83.30453
Book value per share -Bvps	280	3.462929	2.260327	-2.69109	12.85567
Earnings per share - EPS	280	.3555543	.5703153	-3.14	2.78
<i>Moderating Variables</i>					
WGI1	280	.44766	.2054027	-.0119737	.725163
WGI2	280	1.028348	.1266039	.9059312	1.337111
WGI3	280	1.670667	.1856412	1.326269	1.914575
WGI4	280	1.874081	.081539	1.726787	1.983542
WGI5	280	1.446923	.2255785	.81868	1.613014
WGI6	280	1.775193	.1668464	1.338571	1.962114
<i>Control Variables</i>					
Firm Size	280	16.47261	1.54873	12.19792	21.32398
Firm's Liquidity	280	.0127309	.1870111	-.61	.45
Cash flow	280	3163841	5170632	0	4.15e+07
Enterprise value	280	6.60e+07	1.61e+08	272518.3	1.33e+09
Tax Complement	280	.7435398	.7596688	-7.63	1.84

Table 6.1, continued

Panel B: Annual Means for the Price Model						
Year	A-share, Mainland China			H-share, Hong Kong		
	Pit	Bvps	Eps	Pit	Bvps	Eps
2000	6.494305	2.206184	.0875	6.392977	2.232831	.0599
2001	5.762476	2.387117	.1515	5.470434	2.406008	.1508
2002	5.749392	2.580143	.1745	5.316468	2.492654	.17635
2003	7.548094	2.754671	.2375	5.878738	2.650629	.194365
2004	4.776427	2.338102	.31	5.310235	2.781636	.2653
2005	4.571832	2.613303	.2895	5.348737	2.859219	.292045
2006	7.66709	3.191919	.3755	7.337863	3.148104	.4425
2007	21.60073	3.205464	.6525	21.7717	3.156294	.5885
2008	6.788103	3.307905	.164	6.934333	3.188149	.2015
2009	12.27545	3.752297	.3985	13.76178	3.933886	.4295
2010	13.61426	4.364371	.659	13.5468	4.268194	.6195
2011	10.49501	5.582861	.668	9.775075	4.79377	.662
2012	10.75124	6.101739	.4565	9.935683	5.261519	.453
2013	11.01227	5.399125	.4405	10.92463	5.308115	.4425
Total	8.939903	3.556086	.3617857	9.121818	3.462929	.3555543

Pit	=	Stock Price
Bvps	=	Book value per share
Eps	=	Earnings per share
WG1,2,3,4,5,6	=	Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption
Firm Size	=	Natural Logarithm of Total Assets
Firm's Liquidity	=	Working Capital to Total Assets
Cash flow	=	Cash & Short-Term Investments
Enterprise value	=	Enterprise Value
Tax Complement	=	Tax Complement

Table 6.1 provides descriptive statistics of the variables used to test the value relevance of accounting information in this study. The accounting data for these AH- shares are generated based on the ASBE 2001, ASBE 2006 and HKFRS, respectively. The total firm- year observations for AH- shares are 280.

As can be seen from Table 6.1, the mean stock price for its A- share is 8.940, and that of H- shares over the same period is at 9.122. These figures imply that the market values of the shares listed on Hong Kong stock market (H- shares) are much higher compared to the market values of the shares of the same firms that are listed on the Mainland China stock market (A- shares). This is consistent with previous studies, which indicated the A- shares' price is generally traded at discounts relative to H-shares' price (Chung et al.,

2013). In other words, H- shares trade at a premium to A-share (Sun & Tong, 2000). Interestingly, the means of book value per share (BVPS) and earnings per share (EPS) from the Mainland China stock market (A- shares) are much higher in comparison to that of the H- shares. This phenomenon implies that the book values of the shares listed on the Mainland China stock market may “overvalued” and therefore the margin of difference between the book values and its corresponding market values (A- shares) is much higher compared to that of the shares listed on the Hong Kong stock market (H- shares). The results also indicate that the book value of the A- shares is much closer to its market values compared to that of the H- shares. This is showed in Table 6.1 above, whereby the mean of earnings per share (EPS) for A- shares is at 0.362 compared to that of H- shares at 0.356. Also, this result is in line with the previous finding that earnings are priced similarly in the year following IFRS convergence (Liao, Sellhorn, & Skaife, 2012). Moreover, the mean of book value per share (BVPS) is lower for H- shares at 3.463 compared to A- shares at 3.556. This is consistent with the work of Liu et al. (2007) who found that book value per share reported under ASBE is more relevant than those based on HKFRS.

However, it should be noted that the minimum value of book value per share represents both negative of A shares and H shares, namely -1.219 and -2.691. This is mainly because of a loss in a Chinese airline – China Eastern Airlines Co., Ltd (A- share code:600115, H- share code: 00670). To be clear, its total liabilities exceeded total assets by approximately RMB 12.64 billion. One of the reasons is the lack of liquidity, a loss of RMB 6,401 million has been recognized in its financial derivatives due to the financial crisis in 2008. In this regard, some studies (Hall, 2010; Tienhaara, 2014) pointed out that the crisis events in the financial market would have a substantial impact on the social, economic, and political environment.

The study also developed Table 6.1 Panel B to capture the changes of each variable in mean annually. The result shows that firms have significantly higher accounting figures from the post- IFRS convergence period compared to that from the pre- IFRS convergence period. The higher stock price (Pit) indicates that there is a positive market reaction to the IFRS convergence (Prather-Kinsey, Jermakowicz, & Vongphanith, 2008). In addition, the same improvement can also be found in the earnings per share and book value per share. This is because the value relevance of equity, book value and earnings are more likely to grow through the IFRS convergence (Iatridis, 2010). In addition, these improvements also occurred in its H- shares, which indicates that the firm performance is most closely associated with the market on which it is mostly traded (Lau & McInish, 2003).

For the control variables, Table 6.1 shows that the natural logarithm of total assets (firm size) of its A-shares is at 16.479, while it is at 16.473 for its H-shares. The Working Capital to Total Assets (Firm's Liquidity) for both is the same at 0.01. The Cash & Short-Term Investments (Cash flow) of its A-share is at 3,393,141, and that of its H-shares is at 3,163,841. The Enterprise Value of its A-shares is at 6.77e+07, while it is at 6.60e+07 for its H-shares. The Tax Complement of its A-shares is at 0.858, and the amount for its H-share is at 0.744.

6.3 Panel-Data Unit Root Test

To reduce the effects of spurious regression, it is very important to implement a unit root test before performing empirical analysis. Several studies (Harris & Tzavalis, 1999; Im, Pesaran, & Shin, 2003; Levin, Lin, & Chu, 2002) explored the problematic limitations of the linear panel-based unit root tests and gave some useful solutions. In this study, Harris and Tzavalis (1999) test is employed, which assumes that all panels contained the same autoregressive parameter versus an alternative with all the time series are stationary

(Harris & Tzavalis, 1999). It aims to test a set of micro-panel data that is relatively short, especially for the time series that less than 20 years.

Table 6.2 below illustrates all panel data used in the study, which are stationary (within time trend, demean, and non-constant). Based on that, the null hypothesis of unit roots for AH- shares is strongly rejected, as all ρ values in brackets are less than 0.05.

Table 6.2: Harris-Tzavalis (HT) test

<i>A-share: N=20, T=14</i>			
Variables	Trend & Demean	Demean	No-constant
Pit	0.2208 (0.0000)	0.4368 (0.0000)	0.6402 (0.0000)
Bvps	0.2069 (0.0000)	0.6179 (0.0000)	0.6179 (0.0000)
Eps	0.2961 (0.0001)	0.4461 (0.0000)	0.6611 (0.0000)
<i>H-share: N=20, T=14</i>			
Variables	Trend & Demean	Demean	No-constant
Pit	0.1814 (0.0000)	0.4120 (0.0000)	0.6438 (0.0000)
Bvps	0.3378 (0.0010)	0.8673 (0.0000)	0.9882 (0.0000)
Eps	0.3183 (0.0003)	0.4697 (0.0000)	0.6876 (0.0000)
Pit	=	Stock price	
Bvps	=	Book value per share	
Eps	=	Earnings per share	
<i>Ho: Panels contain unit roots, Ha: Panels are stationary</i>			
T: Number of periods, N: Number of panels			

6.4 Statistical Tests for the Panel Data Model Selection

Panel data is introduced in the study to investigate the changes in the value relevance of accounting information in a timely manner because the information provided by panel data allows more accurate estimations than that by using only time series or cross-sectional data (Larsen, 2006).

In fact, this data set combines time series and cross-sectional effects, which are common in finance, economic, and accounting papers. However, these effects may be fixed or random. Expressly, fixed effects assume individual group/time has different intercepts, while random effects assume that individual has different disturbances. Hence, when the type of effects and the property of effects are taken consideration, the study

found that there is a need to select an appropriate model either fixed or random. Therefore, to ensure the accuracy of panel data, the F- and Hausman tests are employed together to determine which model is suitable for the study. Therefore, Sub-Sections 6.4.1 and 6.4.2 below present the results obtained from both the F- and Hausman tests. Besides, Sub-Section 6.4.3 summarizes the results of these tests for the study.

6.4.1 F-Test

To identify the model that is fit with the selected sample data, the F- test is adopted in the study. It aims to determine the effect-model that suits the data set selected. In addition, the null hypothesis assumes that all the regression coefficients are equal to zero.

Table 6.3: F- test

<i>A- share</i>		
Model 1 (Price model)	F test= 44.83	Prob > F = 0.0000
Model 2 (WGI1, Mainland China)	F test= 37.79	Prob > F = 0.0000
Model 2 (WGI2, Mainland China)	F test= 32.57	Prob > F = 0.0000
Model 2 (WGI3, Mainland China)	F test= 42.65	Prob > F = 0.0000
Model 2 (WGI4, Mainland China)	F test= 34.32	Prob > F = 0.0000
Model 2 (WGI5, Mainland China)	F test= 31.66	Prob > F = 0.0000
Model 2 (WGI6, Mainland China)	F test= 37.25	Prob > F = 0.0000
<i>H- share</i>		
Model 1 (Price model)	F test= 30.41	Prob > F = 0.0000
Model 2 (WGI1, Hong Kong)	F test= 22.44	Prob > F = 0.0000
Model 2 (WGI2, Hong Kong)	F test= 22.55	Prob > F = 0.0000
Model 2 (WGI3, Hong Kong)	F test= 22.06	Prob > F = 0.0000
Model 2 (WGI4, Hong Kong)	F test= 25.62	Prob > F = 0.0000
Model 2 (WGI5, Hong Kong))	F test= 21.85	Prob > F = 0.0000
Model 2 (WGI6, Hong Kong)	F test= 24.35	Prob > F = 0.0000
<i>H₀: Pool model</i>		

The null hypothesis in F-test is accepted if the significant probability level of $p > \alpha = 0.05$ or rejected if the significant probability level of $p < \alpha = 0.05$. It is worth mentioning that the significance level used in this study is at 5% or 0.05. As shown in Table 6.3 above, the significant value of all p is less than 0.05. This result means the fixed effects are non-zero. Therefore, the study rejected a pooled ordinary least square (OLS) as it is biased.

Additionally, this result also indicates that the stock price is statistically affected by the book value per share, earnings per share, control variables and moderating variables. Then, the study proceeds to the next test, the Hausman test. This statistical test is used to define whether a fixed-effects or a random-effects model should be chosen for the study.

6.4.2 Hausman (1978) Specification Test

The Hausman test is often used in panel data when comparing the fixed and random-effects models' estimates. Several studies (Arellano, 1993; Clark & Linzer, 2015) argued that once being used appropriately, the random-effects model would give the best linear. However, the fixed-effects model would be preferred if there is a correlation between the error term of the random effects model and independent variables.

Table 6.4: Hausman Test

<i>A- share:</i>		
Model 1 (Price model)	Chi-square test value = 19.60	P-value = 0.0015
Model 2 (WGI1, Mainland)	Chi-square test value = 24.53	P-value = 0.0019
Model 2 (WGI2, Mainland)	Chi-square test value = 38.16	P-value = 0.0000
Model 2 (WGI3, Mainland)	Chi-square test value = 27.41	P-value = 0.0006
Model 2 (WGI4, Mainland)	Chi-square test value = 19.27	P-value = 0.0135
Model 2 (WGI5, Mainland)	Chi-square test value = 32.14	P-value = 0.0001
Model 2 (WGI6, Mainland)	Chi-square test value = 20.67	P-value = 0.0081
<i>H- share:</i>		
Model 1 (Price model)	Chi-square test value = 22.28	P-value = 0.0005
Model 2 (WGI1, Hong Kong)	Chi-square test value = 23.54	P-value = 0.0027
Model 2 (WGI2, Hong Kong)	Chi-square test value = 17.87	P-value = 0.0149
Model 2 (WGI3, Hong Kong)	Chi-square test value = 39.76	P-value = 0.0000
Model 2 (WGI4, Hong Kong)	Chi-square test value = 45.93	P-value = 0.0000
Model 2 (WGI5, Hong Kong)	Chi-square test value = 37.83	P-value = 0.0000
Model 2 (WGI6, Hong Kong)	Chi-square test value = 38.47	P-value = 0.0000
<i>H₀: Random effect model</i>		

As shown in Table 6.4 above, the null hypothesis is rejected as the significant probability level of $p < \alpha = 0.05$ for all tests performed in this Sub-section. Therefore, the fixed-effect model is selected for all regressions in this study as the significant value of all p is less than 0.05.

6.4.3 Summary of Panel Data Model Selection

Three statistical tests have been performed to determine an appropriate statistical model for the study, including the Harris-Tzavalis test, F- test, Hausman test. Finally, the summary is presented as follows,

Table 6.5: Summary of Panel Data Model Selection

Pool model	Random effect	The model selected
F- test	Hausman-test	
H_0 is reject	H_0 is reject	
(Fixed effect or random effect)	(Fixed effect)	Fixed-effect Model

Therefore, the study uses the fixed-effect model to examine the changes in the value relevance of accounting information in AH shares as well as the moderating effects of institutional factors.

6.5 Correlation Coefficients (for AH-shares)

The correlation matrix demonstrated in Table 6.6 Panel A and B shows the results of the correlation between dependent variable, moderating variables, control variables and independent variables. The results indicate that the book value per share and earnings per share are both positively associated with the stock price. In other words, the existence of this phenomenon means that most of the variables used are related.

In statistics, there are three types of the strength of correlation: a weak linear relationship (values between 0 and 0.3/-0.3), a moderate linear relationship (values between 0.3/-0.3 and 0.7/-0.7) and a strong linear relationship (values between 0.7/-0.7 and 1/-1) (Ratner, 2009). Accordingly, both book value per share and earnings per share in AH- shares are greater than 0.5 and around 0.7, which is considered to have a moderate positive relationship with the stock price. Besides, most of the moderating variables have proven to have obvious correlations with the dependent variable.

Specifically, the first moderating variable – voice and accountability, is negatively correlated with the stock price in the Mainland China stock market ($-0.30, \rho < 0.05$), while it becomes positive in the Hong Kong stock market ($0.14, \rho > 0.05$). This result indicates that the voice and accountability tend to be silent when the stock price increase in the Mainland China stock market. In comparison, it becomes a positive correlation in the Hong Kong stock market. This phenomenon is probably due to the relative lack of voice and responsibility in Mainland China. In addition, it is also consistent with the idea of “China is a developmental state,” which reflects that most developing country governments would adopt institutional arrangements to promote their economic growth (Knight, 2014).

The second moderating variable – political stability and absence of violence/terrorism are negatively correlated with the stock price in both the Mainland China ($-0.21, \rho < 0.05$) and Hong Kong ($-0.06, \rho > 0.05$) stock markets. These figures are important because they suggest that investors are reluctant to invest capital in areas of high uncertainty. However, they also realize that low-risk investments yield lower returns (Mengistu & Adhikary, 2011).

In contrast, the third moderating variable – government effectiveness is showed positively and significantly associated with the stock price in the Mainland China stock market ($0.35, \rho < 0.05$) and the Hong Kong stock market ($0.23, \rho < 0.05$). This result is consistent with the previous literature, indicating that the governance effectiveness has a significant positive effect on economic growth (Alam, Kiterage, & Bizuayehu, 2017).

Additionally, the fourth moderating variable – regulatory quality shows a positive and significant association in both the Mainland China ($0.20, \rho < 0.05$) and Hong Kong ($0.19, \rho < 0.05$) stock markets. These figures indicate that the market capitalization and accounting variables can be substantially affected by regulatory quality. This finding is

consistent with Rammal and Zurbruegg (2006), which found that the capital investment is significantly affected by regulatory quality, especially in ASEAN countries.

The fifth moderating variable – the rule of law, is positively correlated with stock price but not at a significant level in the Mainland China stock market (0.09, $\rho > 0.05$). However, it becomes significant in the Hong Kong stock market over the same period (0.14, $\rho < 0.05$).

The last moderating variable – the control of corruption has proven to have a negative correlation with the stock price in the Mainland China stock market (-0.11, $\rho > 0.05$), while it has a positive correlation with the stock price in the Hong Kong stock market (0.20, $\rho < 0.05$). These figures may imply that corruption is often linked with insider-dealing and affects the smooth growth of the financial market through economic bubbles in Mainland China (Cheng, 2008; Sun, 1999). However, in the Hong Kong stock market, financial market regulations are more comprehensive and rigorous. Therefore, the control of corruption exerts a positive effect on its economy. Overall, this correlation matrix reports that the variables used in this study do have a relation with the stock price.

Table 6.6: Correlation Coefficients

Panel A: Correlations for A- shares (Mainland China)

Variables	Pit	Bvps	Eps	WGI1	WGI2	WGI3	WGI4	WGI5	WGI6	Firm size	Firm's liquidity	Cash flow	Enterprise value	Tax complement
Pit	-													
Bvps	0.50***	-												
Eps	0.71***	0.62***	-											
WGI1	-0.30***	-0.26***	-0.30***	-										
WGI2	-0.21***	-0.31***	-0.30***	0.64***	-									
WGI3	0.35***	0.23***	0.32***	-0.88***	-0.54***	-								
WGI4	0.20***	0.18***	0.26***	-0.49***	-0.62***	0.59***	-							
WGI5	0.09	0.11*	0.09	-0.22***	-0.13	0.38***	-0.02	-						
WGI6	-0.11*	-0.02	-0.16***	0.53***	0.47***	-0.47***	-0.46***	-0.08	-					
Firm size	0.41***	0.40***	0.41***	-0.35***	-0.32***	0.33***	0.23***	0.08	-0.21***	-				
Firm's liquidity	0.22***	0.23***	0.24***	0.03	-0.03	-0.02	-0.01	0.02	0.03	-0.10	-			
Cash flow	0.24***	0.46***	0.39***	-0.09*	-0.14**	0.10	0.08	0.10*	0.04	0.56***	0.04	-		
Enterprise value	0.08	0.20***	0.08	-0.14**	-0.11*	0.15**	0.11*	-0.00	-0.07	0.61***	-0.20***	0.45***	-	
Tax complement	0.11*	-0.01	-0.02	-0.06	-0.00	0.10	0.07	0.10	-0.02	0.02	0	0.10*	-0.03	-

*** p<0.01, ** p<0.05, * p<0.1

Table 6.6, continued

Panel B: Correlations for H- shares (Hong Kong)

Variables	Pit	Bvps	Eps	WGI1	WGI2	WGI3	WGI4	WGI5	WGI6	Firm size	Firm's liquidity	Cash flow	Enterprise value	Tax complement
Pit	-													
Bvps	0.50***	-												
Eps	0.67***	0.70***	-											
WGI1	0.14*	0.31***	0.23***	-										
WGI2	-0.06	-0.13*	0.01	0.36***	-									
WGI3	0.23***	0.23***	0.27***	0.76***	0.44***	-								
WGI4	0.19***	0.1	0.13*	0.45***	0.30***	0.78***	-							
WGI5	0.14**	0.24***	0.22***	0.93***	0.41***	0.78***	0.42***	-						
WGI6	0.20***	0.13*	0.22***	0.61***	0.31***	0.71***	0.35***	0.82***	-					
Firm size	0.40***	0.41***	0.38***	0.29***	-0.04	0.30***	0.13*	0.29***	0.29***	-				
Firm's liquidity	0.25***	0.38***	0.26***	-0.03	-0.08	-0.08	-0.07	-0.04	-0.04	-0.15**	-			
Cash flow	0.21***	0.42***	0.35***	0.08	-0.15**	0	-0.03	0.01	-0.05	0.55***	0.04	-		
Enterprise value	0.02	0.1	0.03	0.1	-0.08	0.07	0.01	0.08	0.06	0.64***	-0.23***	0.54***	-	
Tax complement	0.05	0.11	0.08	-0.01	0.08	0.06	0.12*	-0.03	0	0.1	0.01	0.05	0.03	-

*** p<0.01, ** p<0.05, * p<0.1

6.6 Value Relevance of Accounting Information of AH Shares

The first objective of the study is to assess the quality of financial reporting. Specifically, it aims to measure the incremental change in the value relevance of accounting information pre- and post- IFRS convergence. Therefore, the study initially introduces a paired sample t-test to verify the hypothesis H1a. The following sub-section shows the mean differences in accounting variables pre- and post IFRS convergence. Besides, to obtain a better understanding of the impact of IFRS convergence, this study also includes the analysis of Ordinary Least Squares (OLS) regression to discuss the changes in explanatory power R^2 and accounting variables.

6.6.1 Paired Sample T-Test – Accounting Variables

The paired sample t-test compares the difference between two means from the same individual (Sirkin, 2005). The purpose of the sample t-test is to determine whether there is statistical evidence that the mean difference between pre- and post- IFRS convergence accounting variables is significantly different from zero. Besides, the paired sample t-test is a parametric test.

Table 6.7 reports the test results for the changes in the accounting data pre- and post-IFRS convergence. The results show that there is a significant difference between paired figures of stock price, book value per share and earnings per share.

As is shown in Table 6.7 Panel A, the mean value of stock price of A share has increased from 6.081 (pre-IFRS convergence) to 12.362 (post-IFRS convergence). Besides, the book value per share and earnings per share in the post- IFRS convergence period has increased by 1.948 and 0.259 compared to that from the pre- IFRS convergence period, respectively. This result is consistent with the studies of Barth et al. (2008) and Hung and Subramanyam (2007), which pointed out that IFRS convergence is likely to lead to a higher accounting data that exhibits higher value relevance of accounting

information. In addition, by bias, the book value is persistently lower than its associated market value (Beaver & Ryan, 2000). Also, the increased percentage of stock price exceeds that of its book value per share as the IFRS convergence is more biased in the stock price but lags in the book value per share. This phenomenon is consistent with the finding of Feltham and Ohlson (1995), which showed stock price equals the book value per share plus the net present value of expected future abnormal earnings.

Table 6.7: Paired Sample T-test

Panel A: Paired Sample t-test for A- shares							
Variables	(N)	Pre- IFRS	Post- IFRS	Difference	St_E	t_value	p_value
Pit	20	6.081	12.362	-6.281	.613	-5.36	0.0000
Bvps	20	2.581	4.530	-1.948	.326	-5.97	0.0000
Eps	20	.232	.491	-.259	.068	-3.79	0.0001
Panel B: Paired Sample t-test for Industry Relatives							
<i>High-Tech Industries – Mean</i>							
Variables	(N)	Pre- IFRS	Post- IFRS	Difference	St_E	t_value	p_value
Pit	3	8.765	10.592	-1.827	2.76	-.65	0.5118
Bvps	3	3.841	3.659	.181	.718	.25	0.8023
Eps	3	.433	.297	.135	.126	1.1	0.2879
<i>Low-Tech Industries – Mean</i>							
Pit	17	5.608	12.675	-7.067	1.28	-5.5	0.0000
Bvps	17	2.36	4.684	-2.325	.358	-6.5	0.0000
Eps	17	.197	.525	-.329	.076	-4.3	0.0000
Panel C: Paired Sample t-test for Stock Price							
<i>Annual means (AH- share)</i>							
Year	(N)	A- shares	H- shares	Difference	St_E	t_value	p_value
2000	20	6.494305	6.392977	0.101328	3.38	.05	.976
2001	20	5.762476	5.470434	0.292042	1.61	-.25	.801
2002	20	5.749392	5.316468	0.432924	1.66	-.2	.83
2003	20	7.548094	5.878738	1.669356	1.47	1.2	.247
2004	20	4.776427	5.310235	-0.53381	.812	-.65	.519
2005	20	4.571832	5.348737	-0.77691	.829	-.85	.419
2006	20	7.66709	7.337863	0.329227	1.35	.25	.81
2007	20	21.60073	21.7717	-0.17097	6.47	-.05	.979
2008	20	6.788103	6.934333	-0.14623	1.94	-.05	.957
2009	20	12.27545	13.76178	-1.48633	3.48	-.4	.69
2010	20	13.61426	13.5468	0.06746	3.57	.05	.975
2011	20	10.49501	9.775075	0.719935	2.81	.25	.789
2012	20	10.75124	9.935683	0.815557	2.78	.3	.762
2013	20	11.01227	10.92463	0.08764	4.21	0	.984

Additionally, the study also found that the impact of IFRS convergence has a greater impact on low-tech industries than on high-tech industries. In other words, Older and larger listed firms benefit more from the IFRS convergence process. In Table 6.7 Panel B, the result shows that in high-tech industries, the stock price, book value per shares, eps have increased by 1.827, -0.181, -0.135, respectively. In comparison, in low-tech industries, the average stock price, book value per shares, eps only have increased by 7.067, 2.325, 0.329, respectively.

Also, in Table 6.7 Panel C, the result shows that the mean difference in stock price between A- shares and H- shares have significantly reduced after IFRS convergence. For instance, the difference dropped to 8.76% in 2013. This phenomenon indicates that information asymmetry in stock price has been decreased after IFRS convergence. Accordingly, H1a is supported by the findings obtained from the paired sample t-test. It is confirmed that the value relevance of accounting information has changed after the IFRS convergence. Specifically, the accounting data reported under ASBE2006 are likely to exhibit higher value relevance compared to that of ASBE 2001.

6.6.2 Ordinary Least Squares (OLS) Regression

Ordinary least-squares (OLS) regression is perceived as one of the most popular statistical methods used in social science (Hutcheson, 2011). It is designed to predict the values of continuous response variables by using one or more explanatory variables. Furthermore, it can also be used to determine the strength of the relationship between these variables. In this study, OLS regression is used as a statistical analysis method to explore the relationship between accounting information and stock price.

Table 6.8 presents the results by comparing accounting data from the pre- and post-IFRS convergence periods, and the coefficients obtained from OLS regression (more detailed information refers to Appendix C). It shows that at 5 percent significant level, all

the accounting data is statistically significant. The coefficient of book value per share has fallen from 2.620 to 0.651, while the coefficient of earnings per share has increased from -4.239 to 10.278 over the same period. Besides, the results also indicate that the adjusted R^2 of AH- shares in the Mainland China stock market (A- shares) from the post- IFRS convergence period are higher (0.670) than that from the pre- IFRS convergence period (0.538). This result appears that the AH- share experienced a modestly significant improvement in the value relevance of earnings per share but less in the value relevance of book value per share in the Mainland China stock market upon IFRS convergence. This phenomenon is consistent with the study of Barth, Beaver, and Landsman (1998), which showed that firms' financial health declines are negatively associated with the book value per share. The rest are control variables including the control of firm size (InTA), firm's liquidity (RWCTA), cash flow (SCSI), enterprise value (Ev), and tax complement (RTAXC).

Table 6.8: Ordinary least squares (OLS) regression for AH shares

Variables	Pre- IFRS (ASBE 2001) Coefficients	Post- IFRS (ASBE 2006) Coefficients
Book value per share (BVPS)	2.620*** (0.447)	0.651*** (0.228)
Earnings per share (EPS)	-4.239** (1.990)	10.278*** (1.366)
<i>Control Variables</i>		
Firm size (InTA)	2.611*** (0.406)	13.532*** (1.281)
Firm's liquidity (RWCTA)	8.105** (3.667)	-17.356*** (5.662)
Cash flow (SCSI)	0.000000584*** (0.000000208)	-0.000000692*** (0.000000179)
Enterprise value (Ev)	2.82e-08*** (8.84e-09)	-9.02e-09* (4.69e-09)
Tax complement (RTAXC)	10.06** (4.232)	1.575*** (0.453)
_cons	-52.59*** (7.785)	-223.9*** (21.56)
Sample size	280	280
R-squared	0.6324	0.7409
Adj. R-squared	0.538	0.670

*** p<0.01, ** p<0.05, * p<0.1

In addition, most AH- cross-listed firms are state-owned enterprises (SOE), and many of them are heavily in debt (Sun, Tong, & Wu, 2013). Therefore, there is a high possibility to report a negative book value on its financial position when its total liabilities exceed total equities.

6.7 Multiple Regression Analysis

Based on the second set of hypotheses developed in Chapter 4 and research methodology formulated in Chapter 5, the multiple regression analysis was thus performed to explore how institutional factors affect the value relevance of accounting information of AH- shares. High-value relevant accounting information is paramount for the efficient functioning of the financial market. From an accounting perspective, value relevance represents how accounting information is reflected in the stock price. It plays a vital role in influencing the preparation of financial reports to those who rely on this information to make economic decisions. Also, the IASB emphasized its importance as a basis for the preparation of financial reporting on the conceptual framework. However, some studies reported that there are many factors that affect the value relevance of accounting information such as the country-level factors, culture and institutional factors, as mentioned earlier in previous chapters. To date, few studies have explored the impact of these factors on AH- shares in the context of China.

It is also important to understand the moderating effects, as to how the Worldwide Governance Indicators affect the value relevance of accounting information. Statistically, the moderating effect is equal to the simultaneous effect of two or more independent variables on a dependent variable, in which the combined effect is significantly greater or less than the sum of the parts (Baron & Kenny, 1986). Including a moderating variable in the OLS regression provides the study with a better understanding of the relationship between book value per share, earnings per share, and stock price.

Table 6.9: Moderating Effects Testing

Mainland China stock market (A-shares side)							
Independent variables	Model 1	Institutional Factors (the Worldwide Governance Indicators)					
		<i>Model 2 (WGI-1)</i>	<i>Model 3 (WGI-2)</i>	<i>Model 4 (WGI-3)</i>	<i>Model 5 (WGI-4)</i>	<i>Model 6 (WGI-5)</i>	<i>Model 7 (WGI-6)</i>
Book value per share (BVPS)	0.286 (0.190)	14.893*** (5.298)	-3.436** (1.394)	1.059*** (0.215)	-2.750*** (0.885)	5.525*** (2.028)	3.783*** (1.142)
Earnings per share (EPS)	10.04*** (1.239)	-107.729*** (23.53)	29.289*** (7.912)	2.173 (1.604)	27.222*** (4.603)	-15.377 (9.713)	-30.880*** (7.317)
Book value per share * WGI	-	8.223*** (3.243)	-7.138*** (2.582)	-9.901*** (2.792)	-13.215*** (3.644)	10.186** (3.923)	6.718*** (2.377)
Earnings per share * WGI	-	-70.511*** (14.06)	36.30** (14.97)	79.249*** (11.31)	80.327*** (21.18)	-48.964*** (18.49)	-78.279*** (13.78)
WGI*	-	5.806 (7.714)	25.29*** (5.671)	0.767 (8.300)	6.922 (7.679)	-16.454 (12.18)	14.111** (6.059)
<i>Control Variables</i>							
Firm Size (InTA)	3.886*** (0.517)	4.575*** (0.539)	4.846*** (0.529)	4.169*** (0.505)	4.242*** (0.512)	3.835*** (0.516)	4.466*** (0.499)
Firm's Liquidity (RWCTA)	3.575 (3.582)	3.359 (3.436)	2.760 (3.433)	5.078 (3.303)	3.604 (3.476)	3.534 (3.576)	1.863 (3.299)
Cash flow (SCSI)	-0.000000254** (0.000000127)	-0.000000205* (0.000000123)	-0.000000261** (0.000000126)	-0.000000201* (0.000000118)	-0.000000184 (0.000000124)	-0.000000207 (0.000000129)	-0.000000205* (0.000000119)
Enterprise value (Ev)	-3.94e-10 (4.24e-09)	-1.16e-09 (4.01e-09)	2.98e-10 (4.05e-09)	-1.82e-09 (3.88e-09)	-3.98e-10 (4.10e-09)	3.03e-10 (4.21e-09)	-1.81e-09 (3.88e-09)
Tax Complement (RTAXC)	1.176** (0.491)	1.237*** (0.464)	1.120** (0.466)	1.236*** (0.450)	1.287*** (0.476)	1.181** (0.490)	1.276*** (0.449)
_cons	-60.39*** (8.110)	-62.76*** (13.60)	-64.13*** (8.038)	-65.20*** (8.022)	-65.14*** (8.596)	-68.19*** (10.10)	-63.55*** (7.820)
Sample size							280
R-squared	0.6098	0.6580	0.6543	0.6822	0.6427	0.6238	0.6781
Adj. R-sq	0.564	0.613	0.609	0.640	0.596	0.574	0.636

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 6.9, continued

Hong Kong stock market (H-shares side)							
Independent variables	Model 1	Institutional Factors (the Worldwide Governance Indicators)					
		<i>Model 2 (WGI-1)</i>	<i>Model 3 (WGI-2)</i>	<i>Model 4 (WGI-3)</i>	<i>Model 5 (WGI-4)</i>	<i>Model 6 (WGI-5)</i>	<i>Model 7 (WGI-6)</i>
Book value per share (BVPS)	-0.657 (0.400)	-2.347** (0.972)	6.345* (3.441)	4.748 (3.347)	30.876*** (7.246)	-4.421 (2.909)	7.358* (4.115)
Earnings per share (EPS)	9.319*** (1.674)	26.417*** (7.362)	13.421 (14.10)	-29.528 (18.62)	-174.164*** (33.26)	60.694** (25.43)	-81.929*** (28.05)
Book value per share * WGI	-	4.154** (1.951)	-7.661** (3.476)	-3.107 (1.962)	-16.494*** (3.832)	2.474 (1.955)	-4.325* (2.279)
Earnings per share * WGI	-	-34.274** (14.18)	-2.557 (13.04)	21.689** (10.23)	95.432*** (17.28)	-33.882** (16.61)	49.044*** (15.04)
WGI*	-	-19.1612*** (4.834)	13.820 (9.365)	-8.720 (6.076)	18.058 (11.83)	-16.17*** (4.565)	-16.471*** (6.077)
<i>Control Variables</i>							
Firm Size (InTA)	4.529*** (0.673)	5.602*** (0.656)	4.679*** (0.659)	5.604*** (0.706)	4.518*** (0.640)	6.343*** (0.672)	5.943*** (0.715)
Firm's Liquidity (RWCTA)	5.235 (4.738)	0.371 (4.428)	5.365 (4.611)	2.588 (4.763)	7.466* (4.506)	-0.536 (4.374)	1.365 (4.485)
Cash flow (SCSI)	3.54e-08 (0.000000190)	2.76e-08 (0.000000194)	-6.77e-08 (0.000000188)	1.13e-07 (0.000000194)	1.75e-07 (0.000000181)	2.29e-08 (0.000000188)	1.73e-09 (0.000000176)
Enterprise value (Ev)	2.87e-09 (7.73e-09)	7.41e-09 (7.29e-09)	9.59e-10 (7.54e-09)	5.44e-09 (7.51e-09)	3.91e-09 (7.21e-09)	7.00e-09 (7.21e-09)	1.54e-09 (7.17e-09)
Tax Complement (RTAXC)	0.0699 (0.694)	0.194 (0.636)	-0.0580 (0.681)	0.285 (0.670)	-0.0973 (0.667)	0.141 (0.625)	0.0951 (0.638)
_cons	-67.59*** (10.51)	-78.09*** (9.969)	-81.42*** (13.14)	-71.29*** (12.52)	-102.2*** (22.59)	-74.18*** (10.56)	-61.52*** (12.23)
Sample size							280
R-squared	0.5263	0.6084	0.5640	0.5729	0.5985	0.6221	0.6065
Adj. R-sq	0.456	0.542	0.490	0.501	0.530	0.558	0.540

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Therefore, the study introduces the interactive variables (BVPS*WGI and EPS*WGI) to capture the impact of institutional factors (WGIs). Besides, these institutional factors (WGIs) are deemed to affect the value relevance of accounting information if it is statistically significant. Table 6.9 reports how these institutional factors affect the value relevance of accounting information (more detailed information refers to Appendix D). Moreover, model 1 does not comprise institutional factors. In comparison, Model 2-7 include each dimension of the Worldwide Governance Indicators; specifically, model 2 consider the Voice and Accountability (WGI-1), Model 3 reflects the Political Stability and Absence of Violence/Terrorism (WGI-2), Model 4 denotes the Government Effectiveness (WGI-3), Model 5 signifies the Regulatory Quality (WGI-4), Model 6 takes account of the Rule of Law (WGI-5) and lastly, Model 7 for the Control of Corruption (WGI-6).

Firstly, a positive coefficient on the variables of BVPS*WGI1 (8.223, $\rho < 0.05$) and a negative coefficient on EPS*WGI1 (-70.511, $\rho < 0.05$) suggest the value relevance of earnings per share and book value per share are affected by the voice and accountability (WGI1) in A- shares. It is consistent with the work of Knight (2014) that the Chinese government must address the voice and accountability issues to achieve more tremendous economic success. Moreover, the impact of the voice and accountability also remains significant for H-shares as there is a positive coefficient on the variable of BVPS*WGI1 (4.154, $\rho < 0.05$), while a negative coefficient on the variable of EPS*WGI1 (-34.274, $\rho < 0.05$). These results indicate that the voice and accountability do play an essential role in determining the quality of accounting information (Hoque and Moll, 2001) in both Mainland China and Hong Kong stock markets. Regarding the quality of accounting information, it is related to higher levels of transparency (Bastida and Benito, 2007), which have a fundamental impact on the value relevance (Bushman and Smith, 2003).

Besides, the associated adjusted R-squared has increased to 0.613 (A-shares) and 0.542 (H-shares), respectively.

Secondly, the coefficients on the variables of BVPS*WGI2 (-7.138, $\rho < 0.05$) and EPS*WGI2 (36.304, $\rho < 0.05$) also indicate that the Stability and Absence of violence/terrorism is one of the important factors affecting the value relevance in A-shares. Zezhong Xiao, Weetman, and Sun (2004) found that the development of China's accounting standards heavily depends on the attitude of the Chinese government. In comparison, these variables show insignificant coefficients for EPS*WGI2 (-2.557, $\rho > 0.05$) but remain significant for BVPS*WGI2 (-7.661, $\rho < 0.05$) in H-shares. Besides, the associated adjusted R-squared has increased to 0.609 (A-shares) and 0.490 (H-shares), respectively.

Thirdly, as predicted in H_{2c}, the impact of government effectiveness on the value relevance of accounting information is comparatively stronger when a revolution is being undertaken. (i.e., IFRS convergence). The results support this prediction only in the Mainland China stock market (BVPS*WGI3 for -9.901, $\rho < 0.05$ and EPS*WGI3 for 79.249, $\rho < 0.05$). These variables reflect insignificant coefficient for H-shares in relation with book value per share (BVPS*WGI3 for -3.107, $\rho > 0.05$) but remain significant for earnings per share (EPS*WGI3 for 21.689, $\rho < 0.05$). It is consistent with the study of Cahan, Emanuel, and Sun (2009), and they found that in Hong Kong, the impact of country-level institutions (legal system effectiveness, rule of law and corruption) on the value relevance is not significant. Besides, the associated adjusted R-squared has increased to 0.640 (A-shares) and 0.501 (H-shares), respectively.

Fourthly, the coefficients on the interactive variables for both Mainland China (BVPS*WGI4 for -13.215, $\rho < 0.05$ and EPS*WGI4 for 80.327, $\rho < 0.05$) and Hong Kong (BVPS*WGI4 for -16.494, $\rho < 0.05$ and EPS*WGI4 for 95.432, $\rho < 0.05$) stock markets

show the value relevance of accounting information is significantly affected by the regulatory quality. It is consistent with the previous study (Habib and Azim, 2008) that regulatory quality plays a crucial role in ensuring credible financial reporting. In addition, the associated adjusted R-squared has increased to 0.596 (A-shares) and 0.530 (H-shares), respectively.

Fifthly, the coefficients on the variables of BVPS*WGI5 (10.186, $\rho < 0.05$) and EPS*WGI5 (-48.964, $\rho < 0.05$) indicate that the rule of law has an impact on the value relevance in Mainland China. These results indicate that the rule of law plays a substantial role in the formulation and implementation of accounting standards. In addition, it also reflects the level of enforcement of investor-protection laws in Mainland China (Ball et al. 2000; Davis-Friday, Eng, and Liu, 2006). In comparison, these variables represent no longer significant for H- shares in relation with book value per share (BVPS*WGI5, 2.474, $\rho > 0.05$) but remain significant for the earnings per share (EPS*WGI5, -33.882, $\rho < 0.05$), suggesting IFRS adoption has a relatively limited impact on the financial statements of Common Law countries (Clarkson, Hanna, Richardson, and Thompson, 2011), and it is well known that Hong Kong is a common-law region. Besides, the associated adjusted R-squared has increased to 0.574 (A-shares) and 0.558 (H-shares), respectively.

Finally, the coefficients on the variables of BVPS*WGI6 (6.718, $\rho < 0.05$) and EPS*WGI6 (-78.279, $\rho < 0.05$) confirm the impact of control of corruption on the value relevance in the Mainland China stock market. It is consistent with the findings of Sun (1999), which suggested that corruption does have a significant impact on China's economic reform. In addition, the quality of accounting is closely related to the level of corruption in a country (Malagueño, Albrecht, Ainge, and Stephens, 2010). on the contrary, these coefficients of interactive variables become insignificant for the book value per share (BVPS*WGI6 for -4.325, $\rho > 0.05$) but remain significant for earnings per

share (EPS*WGI6 for 49.044, $\rho < 0.05$) in the Hong Kong stock market. One of the reasons may be due to the stringent legal system in Hong Kong. It also can be referred to the zero tolerance of corruption in Hong Kong (Gong and Wang, 2013). In other words, Hong Kong has little room for corruption. In addition, the associated adjusted R-squared has increased to 0.636 (A-shares) and 0.540 (H-shares), respectively. Additionally, to deeply understand the nature of the above relationships, we plotted the impact of institutional factors in Appendix E.

By investigating cross-listed firms, the results indicate that institutional factors, in the country with a one-party political system, play a significant role in influencing the value relevance of accounting information. It suggests that a region with a higher score in the Worldwide Governance Indicators is expected to decrease opportunistic motivations, leading to a higher level of neutrality in value relevance, which ultimately leads to a higher trust in accounting information quality. Moreover, the findings also indicate that the accounting data from the post-IFRS convergence period are more value relevant than those from the period of pre-IFRS convergence, and the differences in the value relevance of accounting information between the Mainland China stock market and the Hong Kong stock market have become narrowed upon the IFRS convergence. It is consistent with previous studies (He et al., 2012; Shields, 2010) that revealed the need for IFRS convergence in China. Furthermore, compared with the Hong Kong stock market, the Mainland China stock market is more likely to be affected by institutional factors. Hence, it can be argued that the IFRS convergence in China has succeeded in its mission to reduce the information asymmetry. Nevertheless, the results also report that the quality of accounting information in Mainland China stock market is still greatly influenced by institutional factors, namely voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control

of corruption, whilst the Hong Kong stock market is significantly influenced by two institutional factors, namely voice and accountability and regulatory quality.

6.8 Chapter Summary

This chapter reported the results of testing the value relevance of accounting information in AH- shares from 2000 to 2013. The first hypothesis was formed based on the assumption that IFRS convergence could improve the value relevance of accounting information. The result confirms this assumption and shows that there is a significant improvement in the explanatory power R^2 , book value per share and earnings per share. Besides, these results also indicate that IFRS convergence can benefit the public interests and brings more value relevant accounting information to investors to help them make economic decisions. Accordingly, H1a is supported based on the findings from the paired sample t-tests and OLS regressions.

Although previous studies (Cieslewicz, 2014; Nurunnabi, 2015; Soderstrom & Sun, 2007) have studied the impact of country-level factors on the effectiveness of IFRS convergence, limited articles have focused on the cross-listed shares, especially the impact of institutional factors. Therefore, the second objective of this study is to explore the impact of institutional factors on the value relevance. Based on the results from the multiple regression, it is confirmed that the institutional factors do have impacts on the value relevance, but it depends on the regions. The findings for A- shares show that all six governance indicators are proven to affect the value relevance of accounting information. In comparison, only two governance indicators are proven to have an impact on the value relevance of accounting information in the H-shares. This phenomenon indicates that the Mainland China stock market (A- shares) is more likely to be affected by the institutional factors than the Hong Kong stock market (H- shares), which is consistent with Ball et al. (2000, p.1), "*In code-law countries, the comparatively strong*

political influence on accounting occurs at national and firm levels.” Overall, the study proves the effect of institutional factors on the value relevance of accounting information in the China context. Also, the study confirms that IFRS convergence does have an impact on firms’ financial disclosure, especially when the institutional environment is weak. The next chapter presents a discussion of the findings for this study.

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CHAPTER 7: DISCUSSION

7.1 Overview

The overall purpose of the study is to explore the changes in the value relevance of accounting information pre- and post- IFRS convergence. Motivated by the lack of value relevance studies on cross-listed shares in China, this study has two research objectives. The first research objective is to compare the value relevance pre- and post- IFRS convergence in Mainland China. The second research objective is to investigate the impact of institutional factors on the value relevance of accounting information.

Table 7.1: Summary of the Findings

Research Questions	No.	Hypotheses	Results	
			A-shares	H-shares
1	Does IFRS convergence affect the value relevance of accounting information of AH- shares, during 2000-2013?	H _{1a} : <i>The accounting data reported under ASBE2006 are likely to exhibit higher value relevance in Mainland China's A-share.</i>	<i>Supported</i>	-
2	Do institutional factors affect the value relevance of accounting information of AH- shares?	H _{2a} : <i>The voice and accountability moderate the value relevance of accounting information of A+H shares.</i>	<i>Supported</i>	<i>Supported</i>
		H _{2b} : <i>The political stability and absence of violence moderate the value relevance of accounting information of A+H shares.</i>	<i>Supported</i>	<i>Not Supported</i>
		H _{2c} : <i>The government effectiveness moderates the value relevance of accounting information of A+H shares.</i>	<i>Supported</i>	<i>Not Supported</i>
		H _{2d} : <i>The regulatory quality moderates the value relevance of accounting information of A+H shares.</i>	<i>Supported</i>	<i>Supported</i>
		H _{2e} : <i>The rule of law moderates the value relevance of accounting information of A+H shares.</i>	<i>Supported</i>	<i>Not Supported</i>
		H _{2f} : <i>The control of corruption moderates the value relevance of accounting information of A+H shares.</i>	<i>Supported</i>	<i>Not Supported</i>

The summary of the hypothesis and findings are tabulated in Table 7.1 above. This study examines the first set of hypotheses (H_{1a}), which is related to the differences in how accounting information is reflected in the stock price between pre- and post- IFRS

convergence period. The results show that the value relevance of book value per share relative to the stock price in the post- IFRS convergence period is higher than that in the pre-IFRS convergence period. In addition, the increased explanatory power R^2 also proves that the first set of hypotheses is supported.

The second set of hypotheses explores the impact of institutional factors on the value relevance of Mainland China and Hong Kong stock markets. H_2 predicts that the institutional factors have an impact on the value relevance of accounting information in AH- shares. The evidence from this study supports all six (H_{2a} affirms the Voice and accountability dimension, whilst H_{2b} confirms the Political stability and absence of violence/terrorism, H_{2c} is in line with the Government effectiveness dimensions, H_{2d} affirms the regulatory quality dimensions, whilst H_{2e} and H_{2f} supports the Rule of law and Control of corruption, respectively) sub-hypotheses. However, as shown in Table 6.9 above, H_{2a} (the Voice and accountability) and H_{2d} (the Regulatory quality) are only significant and thus supported for Hong Kong stock market. These results indicate that the value relevance of accounting information is more likely to be affected by institutional factors in the Mainland China stock market than that in the Hong Kong stock market.

The following sections summarize the previous chapters and discuss the main findings related to the research questions. Section 7.2 provides a summary of the preceding chapters. Then, Section 7.3 presents a discussion of the key findings in this study.

7.2 Summary of the Preceding Chapters

Based on these two research objectives, this study addresses the following research questions:

1. *Does IFRS convergence affect the value relevance of accounting information of AH- shares, during 2000-2013?*

2. *Do institutional factors affect the value relevance of accounting information of AH- shares?*

To reiterate, Chapter 2 outlines the reform of China's accounting standards and their impact on Chinese listed firms. Also, it briefly presents the development of China's stock market followed by discussing the development of accounting standards (ASBE 1992, 1993, 2001, 2006, and HKFRS) in Mainland China and Hong Kong. Besides, it also briefly introduces the nature of AH- shares and the benefits of IFRS convergence.

Chapter 3 provides a review of existing literature on the value relevance of accounting information and IFRS convergence. This review indicates the need to promote a uniform set of high-quality accounting standards. Previously, most of the value relevance studies focus on the developed countries, while little attention has been paid to the developing countries. However, recent studies show that the effectiveness of IFRS convergence may be affected by the institutional environment. Also, the growth of the BRICS¹⁵ has gradually shifted the center of gravity of the global economy towards the developing countries. Therefore, it raises questions such as "how to measure the quality of accounting information in developing countries?", "can investors make the right economic decisions based on such kind of information?" or "How do we compare IFRS and GAAPs?" These questions have prompted researchers to investigate the differences in the quality of accounting information between IFRS and GAAPs.

Chapter 4 develops the theoretical framework and two sets of hypotheses (totally seven sub-hypotheses) for this study. The quality of accounting information and the type of accounting standards applied are complementary and inseparable to each other. So, the

¹⁵ The BRICS countries are intermediate political institutions between Western countries, including Brazil, Russia, India, China, and South Africa.

value relevance of accounting information is expected to be affected by IFRS convergence. Therefore, this study develops the first set of hypotheses (H1a) to examine the changes in the value relevance of accounting information pre- and post- IFRS convergence. In addition, many studies found that some country-level factors may have moderating effects on the value relevance. Then, the study developed the second set of hypotheses regarding the impact of institutional factors. It includes voice and accountability (H2a), the political stability and absence of violence (H2b), the government effectiveness (H2c), the regulatory quality (H2d), the rule of law (H2e) and the control of corruption (H2f).

Chapter 5 discusses the research methodology and research design of the study. This chapter details the process of how the Worldwide Governance Indicators can be used and how it is scored. The research period for investigating the value relevance of accounting information of AH shares is from 2000 to 2013. However, to achieve a more reliable data set for comparing analysis of two consecutive 7-year periods, firms listed on or from the year of 2001 were excluded. Therefore, the study finally obtains 20 AH-share firms (280 firm-year observations). In addition, this chapter presents the stages of this study, including the literature review, how data analysis is carried out and the process of data collection.

Chapter 6 presents the data analysis of the study, including descriptive statistics, statistical panel data tests, paired sample t-test for H1a, OLS regression and multiple regression analysis for H2.

7.3 Discussion of the Key Findings

The cross-border business continues to expand rapidly throughout Asian. In such a dynamic business environment, the national accounting standards are insufficient to fulfil the need for globalization. The listed firms faced severe challenges, especially those with

subsidiaries located in foreign countries. In fact, they are required to prepare financial statements in accordance with that country's compliance requirements. Therefore, in order to obtain high-quality accounting information, academics believed that a uniform set of internationally recognized accounting standards is deemed to be desirable.

In 2007, China released and implemented a new set of accounting standards – ASBE 2006, which is substantially converged with IFRS. Since then, this convergence process has made a significant contribution to China's economy. For the IASB, assisting China's accounting standards to successfully converged with IFRS is a remarkable achievement. This, in return, this has helped the IASB to attract other emerging economies to adopt IFRS. Consequently, IFRS has become a high quality and internationally recognized financial accounting standards around the world today.

The IASB clarified the importance of accounting information quality in its conceptual framework. However, academics raise concerns about whether the IFRS convergence would lead to the convergence of accounting information quality, especially the value relevance of accounting information. Therefore, this study uses panel-data from AH shares to examine the changes in the value relevance of accounting information pre- and post- IFRS convergence in Mainland China. Similarly, the impact of institutional factors on the value relevance has also been verified in the second set of hypotheses.

7.3.1 Results of Value Relevance of Accounting Information of AH-shares

The results of the paired-sample t-test for H1a suggest there is an incremental change in the value relevance of accounting information, which is consistent with the previous studies. In more detail, it shows that the mean value of book value per share and earnings per share in the post- IFRS convergence period has significantly increased compared to that in the pre- IFRS convergence period.

Regarding the signaling theory, this study finds support for the promotion of IFRS in developing countries. It indicates that IFRS convergence is a signal that helps firms to promote their potential to the public. The transition to IFRS is a signal to provide more value relevant information (Tsalavoutas, 2011). In settings with a weak business environment, investors might not be familiar with the accounting standards applied. Therefore, firms decide to comply with IFRS to reduce the investment risks for them. On the contrary, in settings with a strong business environment, asymmetric information could be minimized through diversified communication mechanisms such as financial reporting, non-financial reporting, social media and social monitoring mechanism. However, with more disclosure, it does not necessarily mean that there is a better quality of accounting information. In fact, Accounting information is useful when it is matched with investors' expectations.

Furthermore, the finding of the study also raises concerns about the effectiveness of IFRS convergence in enhancing the transparency and reliability of accounting information. Some studies (Ball, 2006; Fakile, Faboyede, & Nwobu, 2013) argued that allowing unrestricted use of the IFRS may undermine the information quality. Besides, the firms' management would affect the level of disclosure when the market discounts the value of the information (Verrecchia, 1990). In addition, the study found that IFRS convergence has been proved to have a powerful, positive impact on the stock price convergence, which avoids the use of speculative trading strategy in taking advantage of market segmentation and information asymmetry.

The study also suggests that the impact of IFRS convergence would be less effective when stock markets are reaching maturity. This finding raises hot questions such as "will emerging markets remain resilient to globalization?" or "Is it beneficial for developing countries to directly adopt global standards as part of globalization?" Actually,

globalization is an engine of economic prosperity to sweep the world (Clapp & Dauvergne, 2011), which we cannot stop. However, there are many things we can do to slow it down, such as using IFRS convergence instead of full compliance.

Additionally, the findings do raise concerns about the future of the AH- shares, as most AH shares are state-owned firms. Hong Kong used to be a haven for the Chinese firms to absorb foreign capital through IPOs before China–United States trade war, but now more and more Chinese state-owned firms are delisting from Hong Kong Stock Market and shifting their focus to the Mainland China.

7.3.2 The Impact of Institutional Factors on the Value relevance

The second research question aims to investigate how institutional factors affect the value relevance of accounting information in the context of Mainland China and Hong Kong. The results show that there are six institutional factors exert significant impacts on A- shares, while only two factors with a significant impact on the H- shares. This indicates that in countries with a one-party political system, the value relevance is more likely to be affected by institutional factors.

According to the new institutional theory, IFRS is successfully converged into China's accounting standards when it becomes institutionalized, called a mimetic isomorphism. Interestingly, the study found that all these three isomorphisms (mimetic isomorphism, coercive isomorphism and normative isomorphism) have an impact on the value relevance of accounting information in the Mainland China stock market. In contrast, this impact has proven to be negligible in the Hong Kong stock market. Xiang (1998) found similar findings by exploring how institutional factors influencing China's accounting reforms and standards. Moreover, Nurunnabi (2017) identified that coercive isomorphism should be more proactive in making the implementation of IFRS successful. The findings of this study support this point as the crucial determinant of coercive isomorphism has

proven to have an impact on the value relevance in Mainland China. In addition, A lack of accounting professionals is also a critical issue in implementing IFRS in China. Therefore, the urgent need for normative isomorphism in Mainland China is higher than that in Hong Kong. Furthermore, this method might be appropriate for developing countries to convergence with IFRS in accordance with their culture, institutional settings, economic structures, and routines.

However, due to the lack of comparability, it is hard to determine whether the one-party political system would bring better value relevance. In line with previous studies (Ali & Hwang, 2000; Cieslewicz, 2014; Xiang, 1998), country-level factors such as government effectiveness, rule of law, regulatory quality, control of corruption, political stability and absence of violence/terrorism and voice and accountability do have moderating effects on the value relevance. However, after comparing the data of AH shares, the study found that voice and accountability and regulatory quality appear to be significant factors in both Mainland China and Hong Kong stock markets. In fact, the quality of accounting information is affected by market pressure and regulatory pressure (Inchausti, 1997). Therefore, countries that desire to succeed in economic development should try to embrace globalization either in developed or developing stage.

Using AH-shares' data from 2000 to 2013, this study found that the accounting information is more value relevant in the regions where the IFRS is either converged or adopted; where the regulatory quality is high; where the government effectiveness is good; where the control of corruption is strict; where the political environment is stable and where the voice and accountability are unified.

CHAPTER 8: CONCLUSION

8.1 Overview

The study explores the value relevance of accounting information of AH- shares in the context of IFRS convergence. In the light of the mandatory implementation ASBE 2006, the study found that the value relevance of accounting information has improved upon IFRS convergence. Also, the study confirms the benefits of IFRS convergence, as well as the impact of institutional factors.

Obviously, it has several implications. Firstly, it contributes to the literature regarding the value relevance of accounting information in cross-listed shares. Secondly, findings from the pre- and post- IFRS convergence period show investors have gained an understanding and confidence in ASBE 2006. This result indicates the information asymmetry has been reduced following the IFRS convergence. Thirdly, the impact of institutional factors explored by this study shows how the value relevance has changed with Chinese characteristics.

8.2 Significance of the Study

The study of how IFRS convergence affect accounting information quality has generated many academic debates over the last few decades. Also, the application of rule-based accounting standards raised new challenges for investors. In this regard, regulations are less focused on the consequences of IFRS convergence on the quality of accounting information. Instead, they are more concerned about how this convergence process will benefit firms and national interest. Therefore, the study proxied the IFRS convergence as a key signal to help investor distinguish between good and inferior firm. In addition, it has certainly become the most common approach adopted by regulators to harmonize diversity in accounting practices. Also, the study expands the work of Connelly et al., (2011) as the institutional environment is an under-researched aspect of signaling theory.

8.3 Contribution of the Study

The study adds value to the existing literature in its scope and research design by gaining a broad understanding of the impact of IFRS and institutional factors. Similarly, the findings of the study also contribute to current research regarding the need to have a uniform set of accounting standards, especially in emerging economies. Moreover, the study enlightens the understanding of the impact of IFRS convergence on the value relevance with cross-listed shares. Firstly, most of the studies primarily focused on the IFRS adoption in the European context, and many of them have explored the significant benefits upon IFRS convergence (Ball, 2006; Brochet, Jagolinzer, & Riedl, 2013; Florou & Pope, 2012). In comparison, this study covers 20 cross-listed firms which are listed in the emerging economy that is subjected under both common law (Hong Kong) and code law (Mainland China) regimes. Secondly, the study explores the impact of institutional factors on the value relevance of accounting information in regions with different ways of IFRS adoption. Thirdly, implementing IFRS is not an easy task in countries like China, Japan, and Korea, where English is not their first language (Nobes & Stadler, 2018). Therefore, the study investigates the relevant challenges faced by these 20 Chinese listed firms in balancing the costly process and financial benefits.

Furthermore, it is interesting to explore whether the IFRS convergence could increase the value relevance of accounting information in the country: 1) enforces two sets of accounting standards – the HKFRS (IFRS) and ASBE and, 2) where the shares are traded on two distinctive stock markets – Mainland China and Hong Kong stock exchanges that adhere to different regulations and application of accounting standards.

Finally, it is envisaged that the findings of the study would enlighten the understanding of IFRS convergence across the globe and the inevitable impact of institutional factors.

8.4 Limitations of the Study

Despite the numerous contributions, there are still some limitations of the study. Due to practical constraints, the sample size of the study is limited. Therefore, this study might not provide a comprehensive insight into the changes of the value relevance of accounting information. Although the generalizability of the study may be constrained, this study shows that even with IFRS convergence, the value relevance could also be affected by the institutional environment. Also, the sample size of the study is limited to Chinese cross-listed firms and does not include firms from other countries. Thus, the comparisons of R^2 between Mainland China and Hong Kong for the value relevance testing should be interpreted with caution due to potential factor bias.

8.5 Future Studies

Based on the limitations listed above, future studies could enrich the following aspects for further research. First, as this study only provides insights on the value relevance of IFRS convergence from China context, future studies can extend the study background to other countries where might be expected to provide more convincing evidence about the need of high-quality accounting information. Second, this study categorizes all the industries into high-tech and low-tech industries to explore the changes of the value relevance of accounting information pre- and post- IFRS convergence in relation to the industry relatives. Future study with sufficient sample size could further detail firm industries. For example, the study can explore the value relevance of accounting information between telegraph industry and transportation industry, which might be meaningful for those investors or academics who are more interested in a particular industry. Third, the measurement of the institutional factors used in this study is based on the Worldwide Governance Indicators. Future studies could expand to explore the impacts of some other country-level factors, such as the legal system, national culture and social system.

8.6 Conclusion

To conclude, with the acceleration of globalization, there are increasing needs for firms to compete in the international stock markets. At the same time, the high quality of accounting information occupies an essential position in presenting firms' value to its stakeholders at large. Therefore, the convergence of accounting standards has been particularly emphasized in recent years. As the IFRS is relatively comprehensive and widely acknowledged accounting standards, many countries have been persuaded to converge with or adopt IFRS as a mechanism to enhance the value relevance of the accounting information. However, the contextual situations and conditions may vary in different countries or regions, such as economic policies, cultural identities, and institutional factors. Thus, the impacts of IFRS convergence or adoption in those countries or regions can be various and divergent. The results of the study confirm the proposition in the Signaling Theory that the government can control the risks of information asymmetry by ensuring that the enforcement mechanism is in place. Besides, the results of the study also support the proposition in the New Institutional Theory that the behavior of firms and financial reporting constituents correspond to the institutional framework and regulatory regime. As China now is one of the most influential economies around the world and considering the unique Chinese characteristics of "one country, two systems", the study of the IFRS convergence in the context of China and Hong Kong is therefore quite essential and urgent.

This study provides empirical evidence indicating that the value relevance of accounting information in Mainland China stock market has been increased upon IFRS convergence, and the information asymmetry has been reduced accordingly. The findings also provide referable insights for both academics and policymakers in promoting the development of converged international accounting standards in Mainland China and other countries that share similar situations.

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