School of Accounting

A Comparative Study of Vietnamese and International Accounting Standards

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Declaration

To the best my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Signature:

Date: September 2012

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Abstract

This thesis investigates *de jure* convergence of Vietnamese Accounting Standards (VAS) and International Accounting Standards (IAS/IFRS) and *de facto* (actual company reporting practice) compliance with VAS and IAS/IFRS using a sample of 200 Vietnamese listed companies' 2010 annual financial reports. This study is important because Vietnam is one of Asia's fastest growing economies whilst Vietnamese accounting is poorly understood.

The *de jure* analysis shows that during the period 2001-2005 Vietnam initially adopted 84% of the IAS/IFRS issued up through 2003. However, subsequent amendments and new IFRSs have not been updated to VASs, causing a significant decrease in overall *de jure* convergence to a very modest level of 62%. Non-convergence is more noticeable for disclosure than for measurement issues.

The *de facto* analysis shows a somewhat higher level (80%) of compliance with VAS but a lower level (67%) of compliance with IAS/IFRS by Vietnamese listed companies. Disclosure non-compliance is particularly problematic for Vietnam. State ownership, company size and audit firm type are major predictors of measurement compliance, whereas stock exchange location and audit firm type are key predictors of disclosure compliance.

The modest *de jure* convergence of VAS and IAS/IFRS combined with the moderate *de facto* company compliance with VAS leads to a lower *de facto* compliance with IAS/IFRS in Vietnam. The key implication is that enhancement of mechanisms for complying with accounting standards is as important as improvement of *de jure* convergence to achieve *de facto* company reporting convergence with IAS/IFRS in Vietnam. This highlights the role of national accounting standard setters and regulators in promoting the convergence process. From a more global perspective, if the International Accounting Standards Board is to truly achieve its global convergence aim they should review their rule-making approach for emerging markets like Vietnam.

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Glossary of Key Abbreviations

CPA	Certified Public Accountant
DAP	Department of Accounting Policies
DJCS	Overall *De jure* Convergence Score
DJCS.D	Disclosure *De jure* Convergence Score
DJCS.M	Measurement *De jure* Convergence Score
FASB	Financial Accounting Standards Board
GAAP	Generally Accepted Accounting Principles
HNX	Ha Noi Stock Exchange
HOSE	Ho Chi Minh Stock Exchange
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
ICI	IAS/IFRS Overall *De facto* Compliance Index
ICI.D	IAS/IFRS Disclosure *De facto* Compliance Index
ICI.M	IAS/IFRS Measurement *De facto* Compliance Index
IFRS	International Financial Reporting Standards
ISA	International Standards of Auditing
MOF	Ministry of Finance
NAS	National Accounting Standards
ROA	Return on Assets
ROE	Return on Equity
SOE	State Ownership Enterprise
UAS	Uniform Accounting System
VAA	Vietnamese Accounting Association
VAS	Vietnamese Accounting Standards
VASB	Vietnamese Accounting Standards Board
VCI	VAS Overall *De facto* Compliance Index
VCI.D	VAS Disclosure *De facto* Compliance Index
VCI.M	VAS Measurement *De facto* Compliance Index
VIF	Variance Inflation Factor

VND	Vietnamese Dong
WTO	World Trade Organisation

Chapter 1 Introduction

1.1 Motivation of the Study

The globalisation of capital markets has a major impact on the international convergence of accounting standards. The global capital market needs globally-converged accounting standards with high accountability and transparency that enables investors to compare investments across international borders. The convergence of accounting standards contributes significantly to free flows of global investment, and benefits capital market stakeholders (PricewaterhouseCoopers 2007). The International Financial Reporting Standards (IFRS) appeals as an international best accounting practice due to three characteristics of global governance, that is, sponsorship by powerful interest groups/regulators, internationality and plasticity (Chua and Taylor 2008). Since 2005 more than 100 countries have adopted IAS/IFRS (Deegan 2009). Many prior studies address the use of IAS/IFRS around the world, but such research focuses more on developed countries than developing countries. This thesis examines the extent of convergence with International Accounting Standards (IAS/IFRS) in Vietnam, one of Asia's fastest growing economies.

Vietnam is a developing country and is in the process of gradual transition from a centrally planned economy to a market economy with a socialist orientation (Vu 2002). The transition requires a substantial improvement in the transparency of information communicated in markets, including firms' financial reporting (World Bank 2012). Therefore, the Vietnamese accounting system is also in the process of transition from a system emphasising the government's needs to a system focusing on market participants' needs. The introduction of Vietnamese Accounting Standards (VAS) marks a milestone in the process of Vietnam's accounting reform. During the period 2001-2005, Vietnam promulgated its own 26 accounting standards which are generally based on IAS/IFRS issued up through 2003 (IAS Plus 2009b). This active rule-making phase assists Vietnam in immediately integrating into international accounting standards and satisfying one of the crucial preconditions to be accepted as a World Trade Organisation

(WTO) member. However, since 2006 VAS has not been updated to reflect subsequent amendments to IAS and new IFRS (IAS Plus 2009b). This causes a concern that the 26 existing VAS standards are not highly converged with the current IAS/IFRS and do not promote market transparency (Le Minh and Walker 2008).

Joining the WTO, the Vietnamese government's future stated policy is to be more favourably inclined towards foreign investment including joint ventures and international trading. Thus, improvement of convergence with IAS/IFRS is urgent and essential for Vietnam to enhance the transparency of financial disclosure provided by Vietnamese listed companies and hence to meet the more demanding requirements of the global capital markets. Yet, based on Vietnam's more recent inactivity, it is unclear what levels of *de jure* and *de facto* convergence currently exist. Dang (2008) posits the importance of future research that assists in determining an appropriate course of action for updating VAS to improve the convergence of VAS with IAS/IFRS and the suitability of VAS for business practices in Vietnam[1]. Dang (2008) specifically advocates future research into reviewing the current IAS/IFRS and VAS to highlight the divergence between VAS and IAS/IFRS, and addressing the extent of compliance with accounting standards by companies in Vietnam. Such research would assist the goal of greater convergence with IAS/IFRS. It would also support Vietnam's goal of increasing presence in global markets.

'A comparative study of Vietnamese and International Accounting Standards' fits well with the above 'call for research' and is deemed critically important for Vietnam at the present time. In this thesis, such a comparative study is conducted, considering two perspectives of accounting convergence: *de jure* and *de facto*. Convergence is "a worldwide movement currently underway to develop a single set of accounting standards that would provide consistency in financial reporting" and "it aims to produce generally comparable standards with reduced differences over time" (Thomas 2009, 371). There are two types of convergence in the literature; these are *de jure* (or formal) and *de facto* (or material). The former refers to the evolution of accounting rules, while

[1] Dang is the director of Accounting and Auditing Department, Ministry of Finance, Vietnam.

the latter relates to the communication of actual company reporting (Van der Tas 1988; Tay and Parker 1990; Tower 1991). The *de jure* analysis investigates the level of regulation convergence between VAS and IAS/IFRS, addressing major divergences between two sets of accounting standards. The *de facto* analysis expands on the *de jure* perspective, examining the extent of company compliance with VAS and IAS/IFRS in Vietnam. Both *de jure* and *de facto* analyses are conducted at three levels, overall convergence/compliance and its two subsets: measurement and disclosure levels. The specific research questions related to these themes are described in the next section.

1.2 Research Objectives and Questions

The aims of this thesis are to quantify *de jure* (focus on accounting rules) standard-by-standard convergence between VAS and IAS/IFRS, and *de facto* (company reporting) compliance with IAS/IFRS and VAS by the listed companies in Vietnam. *De jure* convergence and *de facto* compliance are examined via three viewpoints: overall, measurement and disclosure levels. The 'measurement' requirements present accounting rules that potentially change the accounting numbers in the company's financial statements. The 'disclosure' requirements are mandatory accounting rules that require additional information to be disclosed in the company's financial statements but do not change the accounting numbers (Soewarso et al. 2003). Then potentially key predictive factors associated with the extent of company compliance with accounting standards and the linkages between *de jure* convergence and *de facto* compliance in Vietnam are examined. The primary research questions are:

1) What is the level of 'overall', 'measurement' and 'disclosure' *de jure* convergence of VAS and IAS/IFRS?
2) What is the level of 'overall', 'measurement' and 'disclosure' *de facto* compliance with VAS by Vietnamese listed companies' annual financial reports?
3) What is the level of 'overall', 'measurement' and 'disclosure' *de facto* compliance with IAS/IFRS by Vietnamese listed companies' annual financial reports?
4) What factors help explain the levels of *de facto* company compliance in Vietnam?
5) Is *de jure* convergence related to *de facto* company compliance in Vietnam?

1.3 Background

1.3.1 International Accounting Rules and Global Accounting Convergence

The International Accounting Standards Committee (IASC) over the last decades has invested significantly in efforts to encourage and cajole domestic standard setters around the world to converge with international accounting standards. In 2001, the IASC was restructured and renamed as the International Accounting Standards Board (IASB) with a more independent and rigorous structure (Ball 2006; Deegan 2009). The stated aims of the IASB are:

> to develop, in the public interest, a single set of high quality, understandable and enforceable global accounting standards that require high quality, transparent and comparable information in financial statements and other financial reporting to help participants in the various capital markets of the world and other users of information to make economic decisions;...
>
> and to bring about convergence of national accounting standards and International Financial Reporting Standards to high quality solutions" (IASB 2010e, A16).

The IASB adopted all existing International Accounting Standards (IAS) and from 2001 has published new regulations in the form of International Financial Reporting Standards (IFRS). To achieve its goal, the IASB cooperates with stakeholders around the world, including investors, national standardsetters, regulators, auditors, academics, and others who have an interest in the development of high quality global standards (IASB 2010d). An important milestone occurred in 2002 when the United States Financial Accounting Standards Board (FASB) and the IASB entered a joint agreement to converge and improve the standards of both the IASB and the FASB (Deegan 2009); and possible adoption of IAS/IFRS for U.S. companies is expected (IASB 2010d).

The IASB's standards underpin the key objective of financial statements to provide useful information to a wide range of users in making economic decisions (IASB 2010a). The fundamental qualitative characteristics highlighted in the IFRS framework to make information provided in financial statements useful to users are 'relevance' and 'faithful representation' (IASB 2010a). The IASB's approach to accounting regulation is 'principles-based', emphasising economic substance rather than legal form; reflecting

economic gains or losses in a timely fashion; and placing more emphasis on relevance relative to reliability (Ball 2006). Advocates state that principles-based standards provide flexibility and thus enable financial accounting practices to adapt more quickly to rapidly changing business practices (Deegan 2009); and can better satisfy the needs of business and the public interests (ICAS 2006).

In an increasingly integrated global economy, the convergence of standards' systems is a very important issue; and IFRS is an instrument to promote convergence of accounting standards (Bhimani 2008). IAS/IFRS is gaining global acceptance and implementation (Carmona and Trombetta 2008). Since 2005, all member states of the European Union (EU) require EU listed companies to use IFRS, and more than 100 additional countries have now also adopted IAS/IFRS (Deegan 2009). Many developing countries are converging their accounting systems towards IAS/IFRS in a variety of approaches. For instance, Mongolia requires IAS/IFRS for all domestic listed companies. The Philippines has adopted most IAS/IFRS with some significant modifications. India, Malaysia, Pakistan and Thailand have adopted selected IAS/IFRS standards quite closely, but significant differences exist with other standards. Indonesia references to IAS/IFRS in developing national generally accepted accounting principles (GAAP), but significant differences exist (Deloitte 2009). China, an emerging market similar to Vietnam, uses a combination of 'progressive change' and 'direct import' approaches to converging with IAS/IFRS (Peng and van der Laan Smith 2010). Vietnam has had a different experience. The IAS/IFRS convergence program started in 2001 and came to a standstill subsequent to 2005 as IAS amendments and new IFRSs were not updated to VAS during the last seven years (2006-2012).

Various advantages of IAS/IFRS adoption are discussed in the literature. The IAS/IFRS adoption enables immediate integration of a country's accounting standards into the mainstream of international accounting standards (Jones and Belkaoui 2010). This helps meet the globalised business needs (Dye and Sunder 2001). In addition, IAS/IFRS adoption enables the countries to save on set-up costs (Jones and Belkaoui 2010), and better prevents the 'capture' of the domestic regulatory bodies by powerful corporations

(Dye and Sunder 2001). Proponents for IAS/IFRS adoption believe that IAS/IFRS is superior to domestic accounting standards, leading to higher-quality financial reporting (Daske et al. 2008; Barth 2008). Empirical research finds that financial reports based on IAS/IFRS are higher quality than those based on non-U.S. domestic accounting standards (Ashbaugh and Pincus 2001; Barth, Landsman, and Lang 2008). Therefore, IAS/IFRS adoption may improve a firm's information environment, assisting companies in raising outside capital (Jones and Belkaoui 2010; Bova and Pereira 2012) and reducing capital costs (Leuz and Verrecchia 2000; Lambert, Leuz, and Verrecchia 2007). From the perspective of investors, Ball (2006) argues that the adoption of IAS/IFRS improves comparability of financial statement information and therefore decreases information costs and information risk to investors. Furthermore, Ball (2006) posits that IAS/IFRS may increase transparency of financial statement information, leading managers to act more in the interest of shareholders and improve the efficiency of contracting between firms and lenders.

There is, however, a concern that the IASB's approach to accounting regulation fundamentally follows the Anglo-American model and therefore may not be suitable for emerging markets due to major differences in culture and business environments between developed and developing countries (Bailey 1995; Prather-Kinsey 2006; Perera and Baydoun 2007). This view is aligned with Ding, Jeanjean, and Stolowy's (2005) empirical findings that culture is significantly associated with the divergence between national accounting standards and IAS. Moreover, it is argued that superior IAS/IFRS does not necessarily lead to higher-quality reporting because reporting quality is driven by economic and political forces (Ball 2006). Carmona and Trombetta (2008) note that institutional contexts of emerging countries may be an obstacle to adopting principles-based IAS/IFRS. For instance, emerging economies face difficulties in adopting a market-based approach to estimation of fair value due to a lack of well-developed markets. Opponents of IFRS adoption argue that domestic accounting standards are superior to IAS/IFRS as the former address country-specific needs (Bova and Pereira 2012). Empirical studies investigating the relevance of IFRS to developing countries reveal mixed results. Evidence from Zimbabwe (Chamisa 2000), South Africa and

Mexico (Prather-Kinsey 2006) and Kenya (Bova and Pereira 2012) show that IAS/IFRS is relevant to developing countries. In contrast, a study in Kazakhstan notes that IAS/IFRS relevance was not yet achieved; however, the authors predict that IAS/IFRS relevance may increase due to further economic development in Kazakhstan (Tyrrall, Woodward, and Rakhimbekova 2007). Carmona and Trombetta (2008) thus suggest that a series of studies of the application of IAS/IFRS in developing countries is an important area for future research.

1.3.2 Overview of Vietnamese Accounting Standards

Vietnam is a new player to the world of accounting regulation. During the period 2001-2005 Vietnam issued 26 accounting standards including VAS 1 'Framework'. VASs are generally based on IASs issued up through 2003. However, a crucially important diversion from international norms is that the VASs have not been updated to reflect subsequent amendments to IASs or new IFRSs (IAS Plus 2009b). Therefore, a widening gap between VAS and IAS/IFRS is predictable, underpinning a decreasing level of convergence between VAS and IAS/IFRS over time. As shown in Table 1.1 (Column IV), the average time lag between the issuance dates of VASs and the issuance/revision dates of old IAS/IFRSs upon which VASs were based is 55 months[2], reflecting VASs were issued 55 months on average later than their equivalent IAS/IFRS base.

[2] Old IAS/IFRSs are the latest IAS/IFRS versions issued/revised before equivalent VASs were issued, and are the IAS/IFRS versions VASs were based on.

Table 1.1 Issuance/Amendment Dates of VASs and Equivalent IAS/IFRSs Including Time Lag

Standards	Issuance/Amendment Dates(month-year)			Time Lag(months)		
	Old IAS/IFRS	VAS	Current IAS/IFRS	Old IAS/IFRS - VAS	VAS - Current IAS/IFRS	VAS – June 12[1]
	(I)	(II)	(III)	(IV)	(V)	(VI)
Inventory	Dec-00	Dec-01	Dec-03	12	24	126
Property, Plant and Equipment	Apr-00	Dec-01	May-08	20	77	126
Revenue	May-99	Dec-01	May-08	31	77	126
Intangible Assets	Sep-98	Dec-01	Apr-09	39	88	126
Statement of Cash Flows	Dec-92	Dec-02	May-08	120	65	114
Construction Contract	Dec-93	Dec-02	Dec-93	108	0	114
The Effects of Changes in Foreign Exchange Rates	Dec-93	Dec-02	Jan-08	108	61	114
Borrowing Costs	Dec-93	Dec-02	May-08	108	65	114
Leases	Jan-01	Dec-02	Apr-09	23	76	114
Presentation of Financial Statements	May-99	Dec-03	Apr-09	55	66	102
Related Party Disclosure	Dec-94	Dec-03	Dec-03	108	0	102
Consolidated and Separate Financial Statements	Dec-98	Dec-03	May-10	60	77	102
Investments in Associates	Oct-00	Dec-03	May-08	38	53	102
Interests in Joint Ventures	Oct-00	Dec-03	May-08	38	53	102
Investment Property	Jan-01	Dec-03	May-08	35	53	102
Accounting Policies, Changes in Accounting Estimates and Errors	Dec-03	Feb-05	Dec-03	14	0	88
Events after the Reporting Period	Dec-03	Feb-05	Dec-03	14	0	88
Income Tax	Oct-00	Feb-05	Jan-08	52	35	88
Segment Reporting/Operating Segment	Aug-97	Feb-05	Apr-09	90	50	88
Interim Financial Reporting	Jun-98	Feb-05	Jan-08	80	35	88
Disclosures in the Financial Statements of Banks and Similar Financial Institutions[2]	Dec-98	Feb-05		74		88
Earnings per Share	Dec-03	Dec-05	Sep-07	24	21	78
Provisions, Contingent Liabilities and Contingent Assets	Sep-98	Dec-05	Sep-98	87	0	78
Business Combinations	Mar-04	Dec-05	Jan-08	21	25	78
Insurance Contract	Mar-04	Dec-05	Sep-07	21	21	78
Mean				**55**	**44**	**101**
Standard Deviation				35	29	16
Min				12	0	78
Max				120	88	126

Legend: In a circumstance where an IAS/IFRS is not revised subsequent to the issuance of the equivalent VAS, the time lag between the VAS and the current IAS/IFRS is zero. [1]Time lag computed from month/year of standard issuance to June 2012 (end of the research period).[2]This standard was withdrawn by IASB in August 2005; therefore, there is no equivalent current IAS/IFRS.

The IAS/IFRSs are updated on a relatively timely basis while VASs remain unchanged in the last seven years (2006-2012). Consequently, the average time lag between the issuance dates of VAS rules and the latest revision dates of their current international equivalents is 44 months (Table 1.1, Column V) and growing[3], reflecting a widening regulatory gap between IAS/IFRS and VAS. Furthermore, the average time lag between the issuance dates of VAS rules and the latest date of this research (June 2012) is 101 months (Table 1.1, Column VI) and lengthening, implying a seriously widening gap between VAS rules and the rules governing a changing global business environment. The stated aim of the Vietnamese government is to obtain 90% convergence of VAS and IAS/IFRS (Adams and Do 2003). The IASB is naturally seeking eventually 100% convergence over time. However, the growing time lag between VAS and IAS/IFRS, underpinning a decreasing level of convergence between VAS and IAS/IFRS over time, suggests that Vietnam's target level (90%) of convergence with IAS/IFRS is overly optimistic and is unlikely to be achieved.

Another reason for the concern that Vietnam's convergence target is unlikely to be achieved is ongoing fundamental differences between IFRS and VAS frameworks. The objective of general purpose financial reporting stated in the IFRS framework is "to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity" (IASB 2010a). Nevertheless, the Vietnamese accounting framework is silent on the purpose of financial statements prepared under VAS rules. This gives rise to differences in other aspects of the conceptual framework, such as the agreed upon qualitative characteristics of useful financial information, elements of financial statements, recognition, measurement, presentation and disclosure which should flow logically from the objective of financial reporting. Regarding the qualitative characteristics of financial statements, recent updates to the IFRS framework replace 'reliability' with 'faithful representation' while the VAS framework still emphasises 'reliability'. This results in a significant difference in the measurement base between the

[3] Current IAS/IFRS are the versions effective by 31 December 2010. This date is chosen because this research started in 2010.

IFRS and VAS standards. From the perspective of the IFRS framework, historical cost is believed more reliable but less relevant than fair value and thus the former position is no longer to be considered a better measurement base. As a major point of difference, the IFRS framework allows four separate measurement bases (historical cost, current cost, realisable value and present values) to different degrees and in varying combinations in financial statements. Yet, historical cost is still the dominant basis for measurement required in the VAS. These differences in conceptual objectives provide yet another reason why a desired convergence between VAS and IAS/IFRS is unlikely to be achieved in the near future.

IAS/IFRS convergence in a country is also affected by social, political, economic and legal factors (Zeghal and Mhedhbi 2006; Perera and Baydoun 2007). The socialist nature of the Vietnamese economy, the lack of a true market economy, high state ownership concentration coexisting with weak investor rights, and a weak accounting profession cause IFRS convergence in Vietnam to be more problematic (Phan 2009; Nguyen and Richard 2011). At the present time, the extent of convergence between VAS and IAS/IFRS is still unknown and therefore the exact status of IAS/IFRS convergence is an important research area in Vietnam.

1.4 Research Significance

This thesis is important for several reasons. First, an investigation of both *de jure* and *de facto* convergence with IAS/IFRS that has rarely been conducted in previous studies is especially relevant to Vietnam where IAS/IFRS is not fully adopted. The *de jure* component of this thesis provides a key starting point for the *de facto* study; and the *de jure* study will be more meaningful if there is a better understanding of actual practices (Parker 1996). Moreover, Van der Tas (1988) argues that *de jure* convergence is not only an end in itself but also an instrument of achieving *de facto* compliance. Arguably, *de facto* compliance with accounting standards is as important as the creation of standards (Hodgdon et al. 2008). Thus, the study of both *de jure* and *de facto*

convergence of VAS with IAS/IFRS helps determine the appropriate course of action needed to achieve greater levels of convergence with IAS/IFRS in Vietnam.

Second, the findings of *de jure* convergence with IAS/IFRS provide important implications for the Vietnamese Accounting Standards rule-makers. That is, the extent of *de jure* convergence of VAS with IAS/IFRS helps answer the question of the current status of *de jure* convergence with IAS/IFRS in Vietnam. Furthermore, the findings of *de jure* convergence for individual standards assists in determining which standards have common requirements and which differences need to be addressed if the goal of greater IAS/IFRS convergence is to be achieved in Vietnam.

Third, the findings of *de facto* compliance with VAS and IAS/IFRS by Vietnamese listed companies provide insights regarding the extent of relevance and enforcement of accounting standards in Vietnam. The levels of *de facto* company compliance with VAS and IAS/IFRS calculated for individual standards help determine an appropriate course of action for the future in improving the VAS compliance and IAS/IFRS *de facto* convergence as a mechanism supporting government policy to grow foreign investment into Vietnam. For the first time, both VAS and IAS/IFRS *de facto* compliance are quantified in this thesis and a standard-by-standard comparison is evolved to explain better the divergence (convergence) between VAS and IAS/IFRS and the use of IAS/IFRS in Vietnamese listed companies.

Fourth, the analysis of association between key factors and the levels of *de facto* company compliance highlights poor compliance companies with specific characteristics, thus allowing accounting regulatory bodies to refine their analysis to enhance the level of compliance with accounting standards by Vietnamese companies. A unique feature of developing socialist countries like Vietnam is high state ownership; and its effect on the level of compliance with accounting standards by Vietnamese listed companies is examined in this thesis.

Another unique aspect of this thesis is the exploration of linkages between *de jure* convergence and *de facto* compliance. The findings may suggest improvement of *de jure* convergence with IAS/IFRS or enforcement of accounting standard compliance, or both, should be prioritised to achieve greater *de facto* convergence with IAS/IFRS in Vietnam.

Finally, in the context of global convergence with IAS/IFRS, the research findings provide further insights as to the relevance of IASB accounting standards to developing countries, and potentially what elements or process might need to change. This research makes an important contribution to the literature on convergence with IAS/IFRS in the context of developing countries and the comprehensive approach to quantifying convergence between a country's accounting standards and IAS/IFRS.

1.5 Thesis Outline

The remaining chapters are organised as follows. Chapter 2 reviews the accounting literature relevant to this thesis. There are three main streams of accounting convergence studies relating to this research. These are quantification of *de jure* convergence between two sets of accounting standards, evaluation of *de facto* company compliance with accounting standards, and an investigation into the association between key factors and the level of *de facto* company compliance with accounting standards. Chapter 3 explains the hypotheses predicting association between dependent variables (the levels of *de facto* compliance with accounting standards by Vietnamese listed companies) and independent variables (company size and state ownership), and control variables examined in this thesis. Chapter 4 describes the research approach employed in the thesis such as the data collection method, *de jure* convergence and *de facto* compliance quantification methods, and statistical analysis. The thesis results of *de jure* convergence and *de facto* compliance are analysed in Chapter 5 and Chapter 6 respectively. Then the linkages between *de jure* convergence and *de facto* compliance are explored in Chapter 7, followed by conclusions drawn in Chapter 8.

Chapter 2 Literature Review

2.0 Introduction

This chapter discusses the relevant literature on international convergence of accounting standards addressing both *de jure* and *de facto* perspectives. Accounting standards are one of three main forms of accounting regulation, along with statutory legislation and stock exchange listing requirements (Tower 1993). Therefore, this chapter begins with an analysis of the theories of regulation and the links to accounting in Section 2.1, followed by an overview of Vietnamese accounting regulation development in Section 2.2. The literature on *de jure* convergence of accounting standards is discussed in Section 2.3, followed by the review of literature on *de facto* convergence (compliance) in Section 2.4. Institutional research which assists in explaining the convergene with IAS/IFRS in Vietnam's context is also reviewed and is presented in Section 2.5. This chapter provides the background to develop hypotheses relating to the fourth research question and the thesis approach to quantifying *de jure* convergence of VAS with IAS/IFRS and *de facto* compliance presented in Chapters 3 and 4 respectively.

2.1 Regulation Theories Links to Accounting

From a financial accounting perspective, regulation is defined as:

> ... rules that have been developed by an independent authoritative body that has been given the power to govern how financial statements are to be prepared, and the actions of the authoritative body will have the effect of restricting the accounting options that would otherwise be available to an organisation (Deegan 2009, 59).

Tower (1993) and Jones and Belkaoui (2010) identify two main categories of theories of regulation, public-interest theories and interest-group or capture theories. The public-interest theories of regulation state that regulation is instituted primarily for the protection and benefit of the general public by correcting inefficient and inequitable market prices, whereas interest-group or capture theories of regulation argue that

regulation is instituted in response to demands of special-interest groups, maximising the income of their members.

The question of whether accounting should or should not be regulated raises various viewpoints. Arguments in favour of regulation are typically based on the public good features of accounting information and the possibility of market failure (Bushman and Landsman 2010). As a public good, the choice of accounting information and accounting technique may affect the public welfare[4] (Belkaoui and Jones 1996). Financial reporting is an important function, providing corporate financial information to the public, and therefore should be strictly regulated to protect the public interest.

Stiglitz (2009) argues that markets are not, in general, efficient due to imperfections and asymmetry of information, that is, the situation in which one party knows something different from what others know. To protect against information asymmetry, regulations are imposed on the operation of markets with a goal of enhancing public confidence in their fairness (Scott 2006). The IASB framework states that the objective of financial statements is to provide information of an entity that is useful to a wide range of users in making economic decisions (IASB 2010a). Financial statements prepared for this purpose are felt to meet the common needs of most users (IASB 2010a). Thus, minimum mandatory disclosure requirements for financial statements to satisfy a wide range of users' demands may reduce information asymmetry (Scott 2006). Moreover, even when markets are efficient, the wealthy and powerful may 'exploit' others to obtain 'Pareto efficient' outcomes, that is, situations in which gains to one are offset by losses to others (Tower 1993). Such outcomes are arguably unjust and therefore governments impose regulations to restrict such exploitation (Stiglitz 2009).

There are two main arguments against the use of accounting regulations. The first argument is against mandatory disclosure. The explanation is that firms already have powerful incentives to disclose all available information to obtain higher prices and

[4] "A public good is a good such that consumption by one person does not destroy it for use by another" (Scott 2009, 165).

therefore maximise their value, because failure to disclose would cause market participants to assume that bad news is hidden (Grossman 1981; Milgrom and Robert 1986). Regulation is seen to improperly skew the natural equilibrium position. Nevertheless, this argument ignores public good features of accounting information. Firms may not volunteer to disclose information that benefits their competitors due to their inability to exclude free riders (Verrecchia 1983). In addition, those who bear the cost of producing information will be unlikely to supply the amount of accounting information desired by the public, thus the supply of accounting information will be lower than the social optimum (Bromwich 1981).

Another argument against regulation is based on capture theory, under which regulators may be captured by those whom they are charged to regulate and thus government intervention to solve market failure is counterproductive (Bushman and Landsman 2010). However, Stiglitz (2009) disagrees arguing that simple and transparent regulatory systems with limited discretion may reduce the risk of regulatory capture.

Accounting regulation has three main forms: company law, stock exchange listing requirements and accounting standards (Tower 1993). Company law requires minimum disclosure for annual financial reports. Stock exchanges require periodic disclosures from firms trading their securities on the exchange (Scott 2006). Accounting standards specify measurement and disclosure methods of accounting treatments (Ali and Ahmed 2007). Accounting standards are seen as "practical and handy rules for the conduct of the accountant's work, and are generally accepted as firm rules, backed by sanctions for non-conformity" (Jones and Belkaoui 2010, 80). Accounting is a highly regulated area of economic activity (Scott 2006). Yet, accounting standards setting may be constructed in a direct or indirect manner. Accounting standards can be directly created by government, whereas under indirect regulation the authority to set standards is permitted by the government yet delegated to professional groups.

Laughlin (2007, 278) states that "the nature of regulation by profession through accounting standard bodies and in terms of accounting standards is defined according to

the parameters permitted in the regulation of these standard setters". The general proposition is that the government of the day has a 'unique role' in the regulation of accounting standard setters. The key point is that governments allow the profession to either self-regulate or to restrict this self-regulation, providing it is working in the 'public interest'. Governments will intervene if this self-regulating body deviates from acceptable levels of perceived public interest criteria (Laughlin 2007). Yet, the interventions are uneasy and varied (Broadbent and Laughlin 2005). When there is no intervention, it can be assumed that the government is content that regulatory activities are working in the perceived public interest (Laughlin 2007). Government intervention in self-regulating professions for the enhancement of the 'public interest' is consistent with the co-regulation perspective introduced by Balleisen and Eisner (2009). The term 'co-regulation' is used to emphasise the importance of integration and institutional design, under which the state must provide a clear mission to regulators, and then maintain a close watch over those quasi-public or private regulators (Balleisen and Eisner 2009). In practice, it is unclear to what level governments keep a 'close watch'.

Accounting standards may be oriented towards a rules-based approach or principles-based approach. Rules-based standards attempt to lay down detailed rules for how to account, whereas principles-based standards lay down general principles relying on judgment (Scott 2006). However, it is impossible to fairly characterise an entire accounting system as pure-rules-based or pure-principles-based because each system consists of a blend of provisions ranging from the particular to the general that are mutually informative (Bennett, Bradbury, and Prangnell 2006; Cunningham 2007). Although the classification is not perfectly defined, those terms are still used in literature.

Financial reporting crises and growing globalisation of business activities has shifted accounting standards worldwide towards a 'principles-based' approach (the U.S. being a notable exception). The corporate scandals in 2001-2002 raised doubts about the adequacy of detailed reporting rules (e.g. U.S. GAAP) and led to a greater receptivity to principles-based IFRS (Bhimani 2008). Yet, a concern about principles-based

accounting standards is that professional judgment may result in different interpretations for similar transactions and events, affecting the comparability of financial statements (Sunder 2010). However, it is argued that rules-based standards may fail to emphasise the economic substance of transactions and events and therefore increase complexity; and specific rules may become useless when the economic environment changes (SEC 2003). Moreover, managers are still able to structure transactions that meet rules while violating the intent (Benston, Bromwich, and Wagenhofer 2006). Nobes (2005) notes that use of more appropriate principles would decrease complexity, the structuring of transactions and optional accounting treatment as well as increase clarity and comparability. Nevertheless, Nobes (2005) concedes that principles-based standards are not always better than rules-based standards. Therefore, appropriate accounting standards, namely 'objectives oriented', could be more optimal as a combination between principles-only and rules-based standards[5] (SEC 2003). Regarding accounting globalisation, Carmona and Trombetta (2008) believe that the flexibility of the principles-based approach allows the application of IFRS in countries with diverse accounting and institutional environments. However, they note that the actual fullness of adoption of IFRS in emerging countries with institutional contexts is generally different from that in their Anglo-Saxon counterparts.

In summary, accounting information is seen as a public good. Therefore, financial reporting, an important function providing accounting information, should be reasonably regulated to protect the public interest from information asymmetry. Accounting standards are one of three main methods of accounting regulation, along with company law and stock exchange listing requirements. That is, accounting standards specify measurement and disclosure methods to prepare financial reports that meet disclosure requirements of company laws and stock exchange listing rules. Accounting standard setting may be regulated directly or indirectly by government. The more directly government intervenes in accounting standard setting, the more accounting standards are

[5] "On the one hand, objectives-oriented standards are superior to rules-based standards, because they avoid the pitfalls that may result in financial engineering to achieve desired accounting results. On the other hand, objectives-oriented standards are superior to principles-only standards, because they provide sufficient structure for preparers and auditors to make a determination of the appropriate accounting" (SEC 2003, para I.C).

oriented towards being rules-based. The generation, evolution and enforcement of accounting regulations is a clear example of regulatory behaviour by the Vietnamese government as discussed in Section 2.2.

2.2 Accounting Regulation Development and Enforcement in Vietnam

Accounting evolution in a country is closely aligned to its economic reforms. Therefore, an overview of economic reforms in Vietnam as described in Appendix A assists the understanding of the generation and evolution of accounting regulations in Vietnam. The overview of Vietnam's accounting regulation development is presented in Sub-section 2.2.1.

2.2.1 Accounting Regulation Development in Vietnam

The post 1975 unification accounting model adopted by Vietnam reflected a Soviet-style accounting system that emphasised government needs appropriate for the pre 1986 centrally planned economy (Nguyen and Renault 2007). In 1986 the policy of *Doi Moi* (renovation) was launched in Vietnam with the aim of gradual transition from the centrally planned economy to a 'market economy with a socialist orientation'. In response to the economic renovation, the Vietnamese accounting system has gradually changed from one which supported a state control function to an accounting system with a greater focus on external information and accountability functions (Nguyen 2010). The process of accounting renovation and reform in Vietnam can be divided into four distinct periods: 1986-1993, 1994-2000, 2001-2006 and 2007-present.

The period 1986-1993: After the initiation of the *Doi Moi* policy, the Ordinance of Accounting and Statistics was first issued in 1988, emphasising the state's 'tax purpose' (Adams and Do 2003). A uniform accounting system (UAS), comprising a unified chart of accounts, a set of rules for accounting, and a predetermined format for financial statements, accounting records and source documents, was formulated by the Ministry of Finance. The UAS was rigidly applied for all accounting entities with the aim of providing data for the state's economic planning and fiscal control (Nguyen and Richard 2011).

The period 1994-2000: Continuing the *Doi Moi* policy, Vietnam opened its economy to international participants. In particular, the U.S. trade embargo was lifted in 1994. In 1995 Vietnam joined the Association of Southeast Asian Nations and then the Asia-Pacific Economic Cooperation forum (Vietnam—Overview of Economy 2010). The integration of Vietnam into the world economy led to the launch of accounting reforms in 1995. The Ministry of Finance promulgated a new UAS that represented a move towards a Western capitalist system, emphasising the needs of non-state stakeholders (Nguyen 2010). However, Yang and Nguyen (2003) argue that the 1995 Vietnamese UAS still emphasised state management, as the unified chart of accounts, recording guidance and predetermined format of financial statements enabled the government and related agencies to control and supervise firms' operations easily. However, there were many business issues not covered by the recording guidance, and companies needed to ask the appropriate authorities to determine an accounting treatment (Yang and Nguyen 2003). Nguyen and Renault (2007) posit that the 1995 Vietnamese uniform accounting system improved the understandability and comparability of financial statements and therefore better met the needs of both internal and external users. However, they felt that the credibility and usefulness of financial statements was not achieved by the 1995 Vietnamese uniform accounting system. A report by the World Bank noted that the Vietnamese approach focused mainly on the code of accounts and was primarily a bookkeeping guild and did not emphasise basic principles. It is felt that this was one of the main reasons for the weakness in financial accountability in Vietnam and therefore the accounting reform strategy in the next phase needed to focus on upgrading accounting practices to a level consistent with international practice (World Bank 2001). Another important accounting reform during this period was the issuance of the Accounting Law in 2003, replacing the 1988 Ordinance of Accounting and Statistics. The 2003 Accounting Law advanced a legal framework for the accounting profession and practice in Vietnam.

The period 2001-2006: In the context of global convergence with IAS/IFRS and preparing for Vietnam's entry into the WTO, from 2001 the process of accounting reform in Vietnam entered into a new but short-lived phase that for a period actively

sought convergence with international accounting standards. During the period 2001-2005 Vietnam issued 26 VAS standards including VAS 1 'Framework'with the finance assistance of the World Bank (Narayan and Godden 2000, Nguyen and Richard 2011). As stated on the IAS Plus website: "Generally, the VASs were based on IASs that were issued up through 2003, though some modifications were made to reflect local accounting regulations and environment." (IAS Plus 2009a). In addition, the 1995 uniform accounting system was replaced by the 2006 uniform accounting system with modifications suitable to the VAS application. The existence of the Vietnamese UAS along with the VAS reflects Vietnam's accounting reformers' desire of converging with international accounting standards, yet still maintaining Vietnam's accounting tradition (Nguyen and Richard 2011). This suggests that Vietnam's current accounting system still emphasises the state's control function (Nguyen and Tran 2012), making it difficult to integrate well into the global IAS/IFRS focus on investors' protection. Adams and Do (2003) posit that the coexistence of the Vietnamese UAS and VAS is typical of Vietnam's accounting system being in transition from a central government planning model to a market-based model.

The period 2007-present: The IAS/IFRS convergence came to a standstill. None of the IASB's amendments to IASs, nor new IFRSs, have been updated to the VAS since 2005 (IAS Plus 2009a). It is argued that Vietnam's convergence with IAS/IFRS during the period 2001-2005 is because of external pressure on Vietnam to be accepted as a WTO member rather than true internal incentives of improving transparency and accountability in financial reporting (Nguyen and Richard 2011; Nguyen and Tran 2012). This may explain the lack of more recent IFRS updates of VAS after Vietnam became an official member of the WTO. The current motivation for change may be weaker, inferring that the convergence of VAS with IAS/IFRS is politically motivated.

In Vietnam, accounting regulation is not generally delegated to the profession. The government intervenes considerably in accounting standard setting. The Vietnamese Accounting Association (VAA) does not play an active role in setting accounting standards, but the Ministry of Finance is instead responsible for these tasks (Narayan

and Godden 2000). The Vietnamese Accounting Standard Board (VASB) is established by the Minister of Finance and chaired by the Vice-Minister of Finance. The VASB has responsibility for developing a plan for establishing VAS; researching and drafting VAS; organising seminars to get comments from departments of the Ministry of Finance, other ministries, government bodies, auditing firms, enterprises and VAA (Narayan and Godden 2000). However, the process of getting comments from the public is not emphasised (Adams and Do 2003). The VAS ultimately is issued by the Ministry of Finance under their authority. This direct government intervention in accounting standard setting results in the rules-based oriented VAS. For instance, the principle of 'substance over form', an important feature of 'principles-based', is not specified in VAS 1 'Framework'. In addition, VAS 1 'Framework' requires the use historical cost as a sole measure of financial statements' elements, reflecting rules-based oriented VAS in term of measurement base.

In summary, the accounting system in Vietnam was and continues to be heavily dependent on a UAS in spite of earlier accounting reforms over time. The coexistence of a UAS and accounting standards is a unique feature of a transitional economy characterised by direct government involvement in accounting regulation, strong state ownership, an immature accounting profession, and a weak and imperfect equity market (Xiao, Weetman, and Sun 2004). The preservation of Vietnamese UAS reflects the socialist ideology of Vietnam's transitional accounting system, which seems to contrast with Vietnam's desire of convergence with IAS/IFRS (Nguyen and Richard 2011; Nguyen and Tran 2012). This leads to a rules-based oriented VAS without strong enough internal pressure for updates reflecting IAS/IFRS changes over time.

The enforcement of accounting regulations is as important as the regulations themselves. The next sub-section addresses the enforcement of accounting regulations in Vietnam.

2.2.2 Accounting Enforcement in Vietnam

In Vietnam, accounting regulations are enforced (at least to some level) by the government via company law, securities law and other legal requirements. The 2005 Vietnamese Company Law (No 60/2005/QH 11) requires companies to prepare and submit financial statements faithfully, accurately and promptly pursuant to accounting laws[6]. The 2010 Vietnamese Securities Law (No 62/2010/QH) regulates information publication by listed companies. More particularly, the Circular No 52/2012/TT-BTC issued by the Ministry of Finance specifies guidance for information publication including financial reports. Listed companies are required to publish annual financial reports audited by independent audit firms approved by the State Security Committee. However, there is a valid concern that the enforcement of accounting regulations in Vietnam is ineffective due to low quality of independent audits and insufficent penalties for non-compliance with accounting regulations (Nguyen 2009).

Independent audit is commonly considered as acritical enforcement mechanism of accounting regulations and accounting standards in particular. However, the quality of independent audit in Vietnam is arguably poor, leading to a lack of transparency and creditability of companies' financial reports (Nguyen 2009). Independent audit firms operating in Vietnam include both local and international firms. Vietnam's independent audit law requires auditors practising in Vietnam sit the Certified Public Accountant (CPA) test in Vietnamese. This requirement is a great obstacle for international audit firms including the big-four operating in Vietnam (Nguyen, Hooper, and Sinclair 2012). A major problem is that auditors' liabilities are not clearly specified in the laws, resulting in low quality audits (Nguyen 2009).

Accounting practice in Vietnam is directed by accounting standards, the uniform accounting system and tax regulations. However, accountants in Vietnam tend to follow

[6]The 2003 Vietnamese Accounting Law (No 3/2003/QH 11) formulates accounting content, accounting structure, accountants and the accounting profession. Fundamental rules for recording and reporting an entity's business transactions are specified in various promulgations such as VAS (No 149/2001/QD-BTC, No 165/2002/QD-BTC, No 234/2003/QD-BTC, No 12/2005/QD-BTC and No 100/2005/QD-BTC) and the 2006 uniform accounting system (No 15/2006/QD-BTC).

the detailed guidance included in the uniform accounting system and tax regulations rather than a stricter adherence to the accounting standards (Nguyen, Hooper, and Sinclair 2012). The reasons for this bias are explained below:

- Accounting tradition in Vietnam is to comply with rigorous guidance directed mostly for tax outcomes (Phan 2009; Nguyen and Richard 2011). Therefore, Vietnamese accountants are far more familiar with these detailed rules. Consequently, the Vietnamese practioners need a long period for the transition to application of the accounting standards that require relatively more professional judgment.
- The uniform accounting system and accounting standards are issued and enforced by the Ministry of Finance. Accountants are supposed to comply with both sets of regulations; yet, sometimes there are conflicts between accounting rules specified in the uniform accounting system and the relevant accounting standards, such as accounting for differences of exchange rates, accounting for goodwill, recognition of revenue and expense, etc. Nguyen, Hooper, and Sinclair (2012) observe that in these circumstances, accountants usually comply with the rules promulgated in the uniform accounting system. This raises questions about the legal status of accounting standards and capacity of accounting policy makers in Vietnam.
- Accounting practice in Vietnam is primarily focussed on tax outcomes rather than satisfying the need for financial information of a variety of users. Therefore, accountants are likely to follow the uniform accounting system emphasising the tax outcomes and they do not prioritise the elements of the accounting standards (Nguyen, Hooper, and Sinclair 2012).

In conclusion, accounting regulations in Vietnam are issued and enforced by the government rather than professional accounting bodies. The enforcement of accounting standards is weaker than the enforcement of the uniform accounting system and tax regulations due to the long accounting tradition of following specific rules and tax-driven nature of the accounting system in Vietnam. The actual impact of accounting standards in Vietnam is thus questioned.

2.3 Quantification of *De jure* Convergence

The term *de jure* refers to the evolution of (accounting) rules. Prior studies of *de jure* accounting convergence have various foci[7]. Some studies conduct comparison analyses to investigate significant differences between national accounting standards (NAS) and IAS/IFRS (Street and Gray 1999; Nobes 2001; Street 2002; Shoaf and Zaldivar 2005; Gornik-Tomaszewski and Millan 2005; Callaghan and Treacy 2007). D'Arcy (2001) clusters national accounting systems based on financial reporting requirements. Other studies explore advantages, disadvantages or obstacles of convergence with IAS/IFRS (Dye and Sunder 2001; Larson and Street 2004; Perera and Baydoun 2007; Rezaee, Smith, and Szendi 2010). In addition, some studies examine the effects of divergence of domestic accounting standards from IAS on the quality of accounting information or forecast accuracy (Alford et al. 1993; Joos and Lang 1994; Bae, Tan, and Welker 2008) or analyse determinants of differences between domestic accounting standards and IAS (Ding, Jeanjean, and Stolowy 2005; Ding et al. 2007). Another major stream focuses on quantification of *de jure* convergence of accounting regulations (Rahman, Perera, and Ganeshanandam 1996; Ashbaugh and Pincus 2001; Rahman, Perera, and Ganeshanandam 2002; Garrido, León, and Zorio 2002; Fontes, Rodrigues, and Craig 2005; Ding et al. 2007; Bae, Tan, and Welker 2008; Peng and van der Laan Smith 2010; Qu and Zhang 2010). The latter stream of *de jure* studies fits well with this thesis as it concentrates on measurement of *de jure* convergence between two sets of accounting standards and therefore it is reviewed in detail below.

Rahman, Perera, and Ganeshanandam (1996) introduce an approach to measuring the formal harmony of accounting regulations between two neighbouring countries, Australia and New Zealand. Accounting regulations are categorised as 'required', 'recommended or suggested', 'allowed or not required or not prohibited', and 'not permitted'. Then the 'exact matches' coefficients are calculated for each measurement and disclosure requirement; and Mahalanobis distancesare employed to reflect the

[7] *Dejure* accounting convergence is alternatively called formal accounting harmony or accounting regulation harmony in the literature. The term '*de jure* convergence' is the term predominantly used in this thesis.

formal harmony of accounting regulations between the two countries. However, it is argued that the absolute distances do not satisfactorily explain the degree of harmony (Fontes, Rodrigues, and Craig 2005; Qu and Zhang 2010). Moreover, their 'exact matches' coefficient measures the 'uniformity' rather than the 'harmony' between countries[8]. Their comparative approach thus fails to quantify the extent of harmony in circumstances where requirements relative to an accounting issue do not match exactly nor are totally diverse between the two jurisdictions. This approach is further developed in Rahman, Perera, and Ganeshanandam (2002). A difference in their latter research is that two forms of regulation harmony matching coefficients are produced for each category of disclosure and measurement. 'Match1' compares the regulations of the two countries (Australia and New Zealand) that 'require' or 'recommend' the use of certain practices; and 'match2' compares the regulations that 'do not permit' the use of certain practices. However, the concern about the appropriateness of 'match1' is that it combined the 'require' and 'recommend' categories even though they are different in nature. The 'require' category consists of compulsory requirements while the 'recommend' category is not compulsory.

Ashbaugh and Pincus (2001) develop 'disclose', 'methods', and 'iasset' indices which reflect respectively differences in countries' accounting disclosure, measurement policies, and reporting standards overall relative to IAS. Yet, these indices also have limitations of adopting absolute values. Another problem is the IAS bias as their indices only reflect the differences where IAS has more disclosure requirements or more restrictive measurement methods than a domestic generally accepted accounting principle (GAAP), but do not include the difference where a domestic GAAP has more disclosure requirements or more restrictive measurement methods than IAS. In addition, their indices do not cover situations where the requirements relative to the same accounting issue are inconsistent between a domestic GAAP and IAS.

[8] Harmony is "any point on the continuum between the two states of total diversity and uniformity" (Tay and Parker 1990, 73).

Garrido, León, and Zorio (2002) measure formal harmonisation progress over three stages in the IASC life. Their empirical analysis includes 20 IAS issues that had been improved during the existence of IASC and employs categories identified by Rahman, Perera, and Ganeshanandam (1996), that is, 'required', 'benchmark', 'allowed' and 'forbidden'. Garrido, León, and Zorio's (2002) approach is helpful in evaluating the evolution of accounting standards' comparability following revision stages because their measure using Euclidean distance reflects the reduction in alternative accounting methods over different stages.

Fontes, Rodrigues, and Craig (2005) argue that the measure developed by Garrido, León, and Zorio (2002) is not suitable to measure *de jure* convergence progress of NAS with IAS/IFRS as it inherits the problem of the Euclidean distances in that they do not reflect "which particular method is adopted nor the strength of the method adopted" (p. 427). To deal with the limitations, they introduce two additional measures of *de jure* convergence progress of NAS with IAS/IFRS using the case of Portugal over the period 1977-2003 to illustrate with a focus on the accounting method only. The first approach using Jaccard's coefficients measures the percentage of similarity in characteristics between two sets of accounting standards and therefore it better assesses *de jure* convergence than does Euclidean distances. In addition, the authors calculate Spearman's correlation coefficient to ascertain the results produced by Jaccard's coefficients. *De jure* convergence progress of Portugal's accounting standards with IAS/IFRS is improved over time as interpreted by Jaccard's coefficients and reinforced by Spearman's coefficients. Fontes, Rodrigues, and Craig's approach presents a significant evolution in measuring *de jure* convergence of NAS with IAS/IFRS in the literature. Nevertheless, their measures are only suitable for accounting issues with alternative methods and therefore they are unable to measure overall *de jure* convergence. The Spearman's correlation coefficient figure helps to understand the trend in similarity between two accounting sets, but it does not reflect the level of similarity.

Ding et al. (2007) use 'absence' and 'divergence' indices to measure the difference between NAS and IAS. 'Absence' measures the extent to which the rules relative to

certain accounting issues are absent in NAS but are covered by IAS. 'Divergence' reflects differences in rules relative to certain accounting issues applied by both NAS and IAS. Nobes (2009) offers two comments on the Ding et al. (2007) harmony indices. The first relates to the IAS bias becauseneither 'absence' nor 'divergence' indices address the circumstance where a domestic accounting system has more rules or more restrictive rules than IAS. The second is that the distinction between 'absence' and 'divergence' might not be useful as '*de jure* divergence' may lead to the same practice as '*de jure* absence'. However, in their reply to Nobes' comments, Ding, Jeanjean, and Stolowy (2009) argue that it is quite unlikely that a domestic accounting system would cover some advanced issues relative to IAS, whilst at the same time missing some basic issues. Nevertheless, this assumption is deemed subjective. With regard to the distinction between 'absence' and 'divergence', they explain that the 'absence' of an issue implies that the issue is not important enough in the specific country or the standard-setter is not competent; while the 'divergence' implies that the issue is important and the standard-setter is competent and confident enough to adopt a non-IAS approach. Yet, their argument fails to convince that their indices reflect the standard setters' approach. The 'absence' of an issue may imply the issue is not applicable to the specific country; whereas the 'divergence' may be because the IAS approach is not suitable to the specific country or the standard setters just do not consider it at all or they do not understand it. Again, their indices also have shortcomings by using absolute values.

Bae, Tan, and Welker (2008) develop two alternative measures of differences in GAAP for 1,176 country-pairs using the GAAP 2001 Survey (Nobes 2001). Under their first measure, for each IAS item, a country-pair is assigned a 'GAAP difference' score of '1' if one country conforms to the IAS item and the other does not. A country-pair's 'GAAP difference' score is coded as '0' if both countries conform to the IAS item or the two countries have 'similar departure' from the IAS item. Alternatively, their second measure codes each IAS item as '1' if one country conforms to the IAS item and the other country's GAAP does not include the IAS item. However, both the measures do not cover the case where the two countries in a pair have 'different departures'from an

IAS item. In addition, their second measure does not capture the circumstance where one country adopts the IAS approach while the other country creates its own approach for an accounting issue. Again, both the measures are absolute values, therefore their usefulness is limited.

Peng and van der Laan Smith (2010) introduce another approach when quantifying *de jure* convergence progress of Chinese GAAP with IAS/IFRS for the measurement perspective over the period 1992-2006. Key measurement items, identified from the principal (bold type) paragraphs in the IFRS 2006, are categorised as 'full convergence', 'substantial convergence' and 'non convergence' with the relevant IFRS. However, the authors do not clearly define the term 'substantial convergence'[9]. Moreover, their 'non-convergence' category again suffers IFRS bias as it does not include the items addressed in Chinese GAAP but not in IFRS. Another limitation is that the 'full convergence' and 'substantial convergence' categories have an equal weight when calculating the level of *de jure* convergence while they reflect different degrees of similarity. Their results show that the level of *de jure* convergence of Chinese GAAP with IFRS has improved over the period 1992-2006: from 20% in 1992, to 35% in 1998, to 49% in 2001 and to 77% in 2006; and the combination of the 'progressive change' and 'direct import' approach supported China's development from a central government planning model to a market based model.

Qu and Zhang (2010) introduce a further approach of matching and fuzzy clustering analysis to measuring *de jure* convergence using the case of Chinese Accounting Standards with a focus on the measurement perspective as an illustrative example. Their

[9]A 'substantial convergence' item is defined as "Chinese GAAP being in substance and principle the same as IFRS" (Peng and van der Laan Smith 2010, 19). Their assumption is that a measurement item is considered to be 'full convergence' or 'substantial convergence' where a firm must be able to choose an IFRS method but still comply with Chinese GAAP. For instance, they categorise an item as 'non convergence' in the circumstance where IFRS allows both the cost and revaluation methods, yet the Chinese GAAP only allows the cost method for measuring the item. Their explanation is that if the firm chooses the revaluation method, they would be in compliance with IFRS but not in compliance with Chinese GAAP. However, it can be argued that Chinese firms hardly ever or never apply the revaluation method if Chinese GAAP only allows the cost method. Therefore, in this case the measurement item is far more likely to be 'substantial convergence' than 'non-convergence'.

approach addresses a wider variety of aspects of accounting measurement than most of the earlier *de jure* convergence studies, such as terminologies, scope of the standard, recognition, measurement criteria, measurement methods and remeasurement by the end of the period. They attempt to quantify the level of *de jure* convergence for each measurement item other than a nominal variable as mostly observed in the literature. For this purpose, each item or sub-item is assigned '1' (completely match) or '0.7' (substantially match) or '0.3' (substantially different) and '0' (completely different). However, their method of categorising and coding measurement items/sub-items has its limitations. They do not define the concepts of 'substantially match' and 'substantially different'. Moreover, the similarity level of an item or sub-item may be any point between 0-1 rather than having only four degrees as identified by the authors. In addition, it is not reasonable when the authors assign 1 to the items that are both absent in the comparison pair of Chinese and IFRS accounting standards. Such items are not relevant and they should be excluded from the calculation of *de jure* convergence scores. Their results suggest that Chinese Accounting Standards issued in 2006 are moving China towards its goal of substantial convergence with the IFRS 2005 with the overall convergence level of approximately 75%[10].

In summary, despite the evolution of the approach to measuring *de jure* convergence of accounting rules in the literature, shortcomings of various approaches still exist as discussed above. Taking account of the limitations in the extant literature, this thesis develops a more comprehensive approach to measuring *de jure* convergence of VAS with IAS/IFRS. First, the level of *de jure* convergence is quantified for each accounting item as a continuous variable instead of the nominal or discrete variable as coded in the earlier studies. The continuous value reflects more exact levels of convergence of an item and minimises the subjectivity of coding reflected in Qu and Zhang's (2010) approach. Second, the *de jure* convergence score covers all fundamental accounting rules formulated in VAS and IAS/IFRS and is further split into measurement and

[10]This score is slightly lower than the score of 77% calculated by Peng and van der Laan Smith (2010). However, Peng and van der Laan Smith use the IFRS 2006 as comparison criteria instead of the IFRS 2005 used by Qu and Zhang.

disclosure components. Measurement and disclosure are different in nature and therefore the distinction between measurement and disclosure *de jure* convergence provides insights into the *de jure* convergence. Third, *de jure* convergence scoring is based on looking at accounting rules from two directions: the content of both VAS and IAS/IFRS. This is to avoid IAS bias reflected in certain prior *de jure* studies (e.g. Ashbaugh and Pincus 2001; Ding et al. 2007; Peng and van der Laan Smith 2010). Finally, the *de jure* convergence score is measured in a number of different ways. 'Full convergence', 'partial convergence' and 'non-convergence' scores are calculated for each standard, and then the three scores are combined into a single *de jure* convergence score. The 'full convergence', 'partial convergence' and 'non-convergence' scores reflect a country's approach to convergence with IAS/IFRS whereas the single *de jure* convergence score shows a country's convergence status.

2.4 Quantification of *De facto* Compliance and Firm Determinants

Another important perspective of international accounting convergence is *de facto* convergence. Studies of *de facto* convergence with international accounting standards follow three main streams in the literature. The first stream focuses on the method of measuring the degree of *de facto* convergence within a country or between countries (e.g. Van der Tas 1988; Tay and Parker 1990; Tay and Parker 1992; Van der Tas 1992; Archer, Delvaille, and McLeay 1995; McLeay, Neal, and Tollington 1999; Taplin 2004). The second stream employs *de facto* convergence indices developed in prior studies to identify the extent of *de facto* convergence of accounting standards between countries and examines factors associated with the extent of *de facto* convergence. Some of these studies involve European countries and/or developed countries (e.g. Emenyonu and Gray 1992; Emenyonu and Adhikari 1998; Gray, Linthicum, and Street 2009) while other studies concentrate on Asia-Pacific countries (e.g. Chong, Tower, and Taplin 2000; Rahman, Perera, and Ganeshanandam 2002; Soewarso et al. 2003; Astami et al. 2006; Astami and Tower 2006; Ali, Ahmed, and Henry 2006). The third stream investigates the extent of *de facto* compliance with accounting standards by companies within a country or countries, and factors associated with the extent of *de facto* company

compliance. This stream is related closely to this thesis examining *de facto* company compliance with VAS and IAS/IFRS in Vietnam and determinants of compliance, and therefore is reviewed extensively below.

Tower, Hancock, and Taplin (1999) study the level of compliance with IAS of listed companies in six Asia-Pacific countries of Thailand, Singapore, Malaysia, Hong Kong, the Philippines and Australia. They produce two alternative compliance ratios, namely Ratio1 and Ratio2. Ratio1 treats a company's non-disclosure of an item as a non-applicable item. This approach raises a concern that a company's non-disclosure of an item may reveal the circumstance where the company intends to hide their non-compliance with IAS rules. In order to address this problem, Ratio2 assumes non-disclosure is non-compliance. Arguably, both the ratios are based on assumptions rather than logical reasoning. Their results show the average Ratio1 by countries is high (around 90%) while the Ratio2 is much lower (42%). Possible determinants of compliance with IAS such as country of origin, size, leverage, profit, industry and days to issuing report are examined. Their findings show that country of origin is the driving force of company compliance with IAS. A limitation of their study is that the compliance indices are not separated into disclosure and measurement components. This further analysis would have allowed a better explanation of the nature of the selected countries' compliance with IAS.

Taplin, Tower, and Hancock (2002) extend the work of Tower, Hancock, and Taplin (1999) on the extent of compliance with IAS in the same six Asia-Pacific countries' data set. Their compliance indices are calculated as an aggregate ratio as well as disclosure and measurement ratios separately. Moreover, a new 'discernibility' index is created to explore patterns of non-disclosure. The 'discernibility' index is calculated as the proportion of items where compliance is discernible (either compliance or non-compliance is clear). Thus, a low value of discernibility reveals the company's ambiguity for satisfying the relevant IAS rule. Their study finds that the level of disclosure compliance (96%) is higher measurement compliance (78%). The four British-based countries (Australia, Hong Kong, Malaysia and Singapore) have higher

discernibility than the other sample countries (the Philippines and Thailand). More profitable companies are more likely to be silent on measurement issues and clearer on disclosure issues.

Chamisa (2000) examines the extent of disclosure compliance and the impact of IASC standards on accounting and reporting practices of Zimbabweanlisted companies. Published annual reports for four years (1975, 1980, 1985 and 1990) of 40 listed companies are collected to determine the level of compliance with 46 requirements of IAS 1 to 22. An IAS requirement is considered as 'compliance' if it is disclosed clearly in the annual reports. Non-compliance is inferred where the annual reports do not give a clear evidence of compliance with IASC standards. Their empirical results show a high level of compliance with the disclosures required by the IAS, which are not required by the Zimbabwe Companies Act. The percentage of the companies in the sample disclosing cases of non-compliance with the IAS increases from 0% in 1975 to 48% in 1990. These findings imply that the IAS is relevant to Zimbabwe and similar developing capital markets where the 'shareholder/fair view' is emphasised. Chamisa's (2000) study, however, has some limitations. First, the extent of compliance with IASC standards is not evaluated separately for measurement and disclosure requirements. Second, some IAS requirements may not be applicable to certain companies but are not excluded in applicable requirements. Finally, the study would be more useful if it examined factors explaining the level of compliance with IAS by Zimbabwean listed companies.

Street and Bryant (2000) investigate differences in compliance with the IASC disclosure requirements and differences in the level of disclosure (including both mandatory and voluntary items) between companies with U.S. listings, U.S. filings, and those without U.S. listings or U.S. filings. The purpose is to identify whether IAS is accepted for cross-border listings. Their analysis shows that companies with U.S. listings have significantly greater levels of overall disclosure (81%) than companies with U.S. filings or without U.S. listings/filings (75%). Companies with U.S. listings or filings have significantly greater levels of overall disclosure (84%) than companies without U.S.

listings or filings (77%). Greater overall disclosure is associated with an accounting policies' footnote including a statement that "the financial statements are prepared in accordance with IAS" (p. 326), and an audit opinion which states that "International Standards of Auditing (ISA) were followed when conducting the audit" (p. 326). The higher level of disclosure compliance with IAS is associated with an audit opinion which states that "the financial statements are in accordance with IAS and ISA were followed when conducting the audit" (p. 326). Their findings highlight the significance of the enforcement issue for the IASC. Enforcement of IAS may not be a concern for companies with U.S. listings or filings, but it is great concern for companies without U.S. listings or filings. However, the sole focus of their research on accounting disclosure issues is arguably not strong enough to identify complete acceptance of IAS for cross-border listings. Consideration of measurement perspective would certainly add value to their research.

Street and Gray (2002) examine the extent of corporate compliance with IAS and the factors associated with compliance based on a worldwide sample of 279 companies referring to the use of IAS. Their compliance indices are separated into disclosure and measurement/presentation, and they are calculated alternatively under two different assumptions. The first assumption is that every standard has an equal weighting with regard to importance while the second assumption is that the importance of each standard is weighted by the number of the standard items. The first assumption is used to eliminate any potential bias associated with standards including multiple items. Their research focuses on 1998 company accounts and finds a low level of compliance, especially for IAS disclosures. With regard to the first assumption, the overall disclosure and overall measurement/presentation indices are 72% and 86% respectively. Under the second assumption, the equivalent indices are 74% and 89%. The key factors associated with the level of compliance are listing status, type of auditor, the manner in which companies refer to IAS, and country of domicile. Their findings suggest that the IASB needs to motivate auditors other than the Big5+2 to enforce compliance when companies make reference to IAS. In addition, the IASB needs to lobby at the national regulatory level.

Glaum and Street (2003) examine disclosure compliance with IAS and U.S. GAAP in the year 2000 financial statements for companies listed on Germany's New Market. Their research is based on a sample of 100 firms applying IAS and 100 firms applying U.S. GAAP. Their findings reveal a considerable extent of non-compliance. The average level of compliance is 84% with a range from 42% to 100%. Companies applying U.S. GAAP have significantly higher average levels of compliance (87%) than companies applying IAS (81%). The overall level of compliance with IAS and U.S. GAAP disclosure is positively associated with companies being audited by Big5 auditing firms, and with U.S. listings. Additionally, disclosure compliance is also associated with references to the use of IAS or U.S. GAAP in the audit opinion. Their findings highlight the concerns regarding the lack of effective supervision in the German capital market. A perceived limitation of Glaum and Street (2003) is that their study focuses solely on disclosure compliance while it would be more insightful to also investigate measurement and presentation compliance.

Ali, Ahmed, and Henry (2004) investigate the extent of disclosure compliance with 14 common national accounting standards by 566 listed companies in three South Asian countries, namely India, Pakistan and Bangladesh, in 1998 and corporate attributes affecting the extent of compliance. The authors develop a checklist of 131 items, and employ the dichotomous and relative scoring approach to evaluate the level of disclosure compliance. They adopt Cooke's (1989) approach which considers a non-disclosure item to be 'non-compliant' or 'non-applicable'. Particularly, the whole annual report is read first to understand the nature and complexity of the company's operations, assisting in determining whether a particular item is relevant to the company. Nevertheless, the authors acknowledge that the discrimination between 'non-compliant' and 'non-applicable' items may be subjective. Their results show the average disclosure compliance level is 80% for the whole sample, 81% for Pakistan, 79% for India and 78% for Bangladesh. Disclosure compliance levels are significantly and positively associated with company size, profitability and multinational-company status, but are not related to leverage and the quality of external auditors.

Akhtaruddin (2005) investigates disclosure compliance in the context of Bangladeshi listed companies. The disclosure index includes requirements from three regulation sources in Bangladesh, such as the Companies Act 1994, disclosure requirements of the stock exchanges, and the approved IAS. The author employs the unweighted approach when calculating a disclosure index. The argument for this approach is that "attention is given to all users of annual reports rather than particular user groups" (p. 407). This index approach is consistent with previous studies, for example, Tower, Hancock, and Taplin (1999); Street and Bryant (2000); Street and Gray (2002) and Glaum and Street (2003). Akhtaruddin (2005) notes that disclosure compliance is low among a sample of 94 listed companies with the average compliance index of only 44%. Company size is not a significant predictor for mandatory disclosure, except where size is measured by sales. The other examined attributes, that is, company age, status (modern or traditional) and profitability have no effect on disclosure compliance. The low disclosure compliance implies that prevailing regulations are ineffective and the government may need to make more efforts to protect the different user groups.

Yeoh (2005) conducts a descriptive study of compliance with mandatory disclosure requirements by New Zealand listed companies in their annual reports over a 3-year period (1996-1998). Disclosure compliance is measured by a researcher-created disclosure index consisting of 495 items required by the Statements of Standard Accounting Practices (SSAP), the Financial Reporting Standards (FRS) and listing rules of the New Zealand Stock Exchange (NZX). Prior approaches in the literature are adopted by Yeoh (2005) to determine applicability of a non-disclosure item. The annual reports are thoroughly read prior to scoring. In addition, preceding and succeeding years' annual reports are also reviewed when necessary, and logical reasoning is employed. The unweighted item approach commonly used in the literature is also employed by Yeoh (2005). Their overall results show a high level of compliance with mandatory disclosure requirements by companies in the sample in each of the years investigated, ranging from 84% to 99% with an average of around 94%. The mean level of compliance with the NZX listing rules is the highest, followed by SSAP compliance, and then FRS compliance. The author posits two possible reasons for the lower rate of

compliance with FRS. First, FRS compliance is more costly. Second, non-compliance of recent and controversial FRS issues may indicate the preparers' disagreement with the views of the Accounting Standards Review Board.

Abdelsalam and Weetman (2007) examine accounting disclosure in periods of economic change relating to emerging capital markets and programs of privatisation in Egypt in the 1990s. Accounting disclosure is quantified by a checklist of 241 items that a company may provide in its annual report. The disclosure list includes disclosure requirements of Company Art (CA) of 1981, Capital Market Law (CML) of 1992 and IAS elements. The applicability of each item is determined by reading the entire annual report to prevent a company from being penalised for not disclosing irrelevant items. Consistent with prior studies, disclosure items are unweighted to minimise subjectivity. Their empirical results show that the disclosure scores have improved overall between 1991-1992 (91% for CA, 73% for CML and 76% for IAS) and 1995-1996 (95% for CA, and the same score of 84% for CML and IAS). The lower levels of compliance with new regulations (CML and IAS) may be due to unfamiliarity with new regulations that require education and training. The level of disclosure has a strong correlation with the presence of majority government ownership and the activity of share trading. Additionally, there is a positive relationship between the IAS disclosure and international audit firms. Their findings highlight the force of mandatory regulation in improving compliance with IAS. Their approach may enhance understanding of the complexity of accounting change in other emerging capital markets and developing countries like Vietnam.

Al-Shammari, Brown, and Tarca (2008) investigate the level of compliance with IAS over time (1996-2002) by companies in the six Gulf Co-Operation Council (GCC) member states (Bahrain, Oman, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates), and the factors associated with compliance. The period 1996-2002 is chosen because four of the six countries, Bahrain, Oman, Kuwait and Saudi Arabia, adopted IAS in 1996 and the other two in 1999, and the last year for which data are available at the commencement of their study is 2002. A self-constructed compliance index

consistent with prior studies of compliance (e.g. Tower, Hancock, and Taplin 1999; Street and Bryant 2000; Street and Gray 2002; and Glaum and Street 2003) is used to measure the extent of compliance with IAS. Their study reveals that the average level of compliance with IAS in the six GCC states improved over time, from 68% in 1996 to 82% in 2002. Consistent with prior studies (e.g. Taplin, Tower, and Hancock 2002; Street and Gray 2002), measurement compliance levels are higher than disclosure compliance levels during the period. The level of compliance increases with company size, leverage, and internationality. In addition, there is significant association between company compliance levels and industry sector. The compliance levels are considerably different among these Gulf countries in spite of their strong economic and cultural relations. The authors conclude that IAS is adopted by law but not in practice in the region due to ineffectiveness in the functions of external auditors and enforcement bodies. Their study contributes to the literature on the progression towards the international convergence of financial reporting. However, a limitation of this study is that the years of collected data vary among countries. This may affect the comparability of data among the countries.

Setyadi et al. (2008) investigate the extent of compliance with the Indonesian accounting regulations of inventory, fixed assets, and depreciation by 160 Indonesian listed companies in their 2006 annual reports. The level of compliance is measured by a self-constructed compliance index consistent with prior literature. Their study shows that the mean of depreciation compliance rate is the highest (99%), followed by inventory compliance rate (72%), and then fixed assets compliance rate (51%). Their analysis finds that a firm's size is a significant predictor of inventory and fixed assets compliance, but not significant for depreciation compliance. Their findings suggest that regulatory intervention is needed to improve compliance with Indonesian accounting regulations.

Hodgdon et al. (2008) examine the effect of disclosure compliance with IFRS in 1999 and 2000 annual reports on analysts' earnings forecast errors using a sample of 89 non-U.S. firms from 13 countries. The authors adopt an alternative weighted compliance

index, namely, the "Saidin" index, in addition to an unweighted compliance index commonly used in the literature (Street and Bryant 2000; Street and Gray 2002). Their Saidin index "weights each disclosure item by the percentage of firms in the sample that do not comply with the item" (p. 6). Their calculation shows the means of unweighted compliance score and the weighted compliance (Saidin) score are respectively 68% and 55%. They document that forecast error is negatively related to IFRS disclosure compliance. Their Saidin index is deemed useful for their study of the relationship between analysts' earnings forecast errors and firm compliance with IFRS disclosure requirements as the Saidin index is based on the assumption that less common disclosures are more costly and may have greater information value to financial analysts (Hodgdon et al. 2008). Yet, there are no arguable grounds for using the Saidin index in their latter study (Hodgdon et al. 2009) of the impact of auditor choice on IFRS disclosure compliance. Their latter study shows that IFRS disclosure compliance is significantly and positively associated with auditor choice (Big5+2) and firm size in spite of using unweighted or weighted (Saidin) compliance scores. Their findings highlight the importance of institutional mechanisms for IFRS compliance.

In summary, prior studies use their self-constructed checklists of items that commonly categorise the items as 'compliance', 'non-compliance' or 'non-applicable'. Logical reasoning is advanced in determining the applicability of each of the checklist items (Street and Gray 2002; Ali, Ahmed, and Henry 2004; Yeoh 2005; Abdelsalam and Weetman 2007). The unweighted item approach is commonly employed in the literature (Tower et al. 1999; Taplin, Tower, and Hancock 2002; Street and Gray 2002; Glaum and Street 2003; Akhtaruddin 2005; Yeoh 2005; Abdelsalam and Weetman 2007; Al-Shammari, Brown, and Tarca 2008). Key related findings are highlighted in an array of global studies of *de facto* compliance with accounting standards. A lower than expected level of compliance is observed in a worldwide sample of companies (Street and Gray 2002), in Germany's New Market (Glaum and Street 2003), in Egypt (Abdelsalam and Weetman 2007), in the Gulf Co-operation Council member states (Al-Shammari, Brown, and Tarca 2008), in South Asian countries (Ali, Ahmed, and Henry 2004), in Bangladesh (Akhtaruddin 2005), and in Indonesia (Setyadi et al. 2008). An exception is

that the level of compliance is considered high in Zimbabwean companies (Chamisa 2000). In Asia-Pacific countries (Australia, Singapore, Malaysia, Thailand, the Philippines and Hong Kong), the level of compliance is high under the assumption that non-disclosure is a non-applicable element, but low under the assumption that non-disclosure is a non-compliance element (Tower, Hancock, and Taplin 1999). The level of measurement compliance with IAS/IFRS is generally higher than the level of disclosure compliance (Taplin, Tower, and Hancock 2002; Street and Gray 2002; Al-Shammari, Brown, and Tarca 2008). Factors associated with the extent of compliance with accounting standards are found from prior studies such as country of origin (Tower, Hancock, and Taplin 1999; Taplin, Tower, and Hancock 2002; Street and Gray 2002; Akhtaruddin 2005), listing status (Street and Bryant 2000; Street and Gray 2002; Glaum and Street 2003), company size (Ali, Ahmed, and Henry 2004; Akhtaruddin 2005; Al-Shammari, Brown, and Tarca 2008; Setyadi et al. 2008; Hodgdon et al. 2009), audit firm type (Street and Gray 2002; Glaum and Street 2003; Abdelsalam and Weetman 2007; Hodgdon et al. 2009), profitability (Taplin, Tower, and Hancock 2002; Ali, Ahmed, and Henry 2004), ownership concentration (Abdelsalam and Weetman 2007), leverage, industry and international links (Al-Shammari, Brown, and Tarca 2008). The prior empirical findings imply that IAS/IFRS is adopted in the law but not in practice in many countries in the world, and highlight important attributes for IAS/IFRS compliance, assisting the IASB in refining their approach to achieve their primary purpose of converging national accounting standards, especially fast growing countries' standards, and IAS/IFRS.

This thesis adapts prior research approaches to measure the extent of *de facto*compliance with VAS and IAS/IFRS by listed companies in Vietnam, followed by more extensive statistical testing related to the level of *de facto* company compliance; and thus answering the research questions 2, 3 and 4: What is the level of 'overall', 'measurement' and 'disclosure' *de facto* compliance with VAS by Vietnamese listed companies' annual financial reports? What is the level of 'overall', 'measurement' and 'disclosure' *de facto* compliance with IAS/IFRS by Vietnamese listed companies'

annual financial reports? And What factors help explain the levels of *de facto* company compliance in Vietnam?

The majority of prior compliance studies focus solely on the disclosure element. However, measurement is a key aspect of financial reporting as it is the instrument to achieve qualitative characteristics of accounting information (Barth 2007). Therefore, this thesis addresses both measurement and disclosure perspectives. In this thesis, two key independent variables are explored; these are company size and state ownership. Company size is a key factor associated with compliance with accounting standards in prior studies (Ali, Ahmed, and Henry 2004; Akhtaruddin 2005; Al-Shammari, Brown, and Tarca 2008; Setyadi et al. 2008; Hodgdon et al. 2009). State ownership is an important factor for emerging capital markets (Abdelsalam and Weetman 2007) and is especially relevant for a transitional economy like Vietnam. Another unique feature of this thesis is that separate compliance indices with IAS/IFRS and VAS are calculated. A comparison between each pair of relative indices better explains the convergence/divergence between VAS and IAS/IFRS and the use of IAS/IFRS by Vietnamese listed companies in practice.

2.5 Institutional Factors Affecting the Adoption of IAS/IFRS

Institutional factors are considered major determinants regarding the adoption of IAS/IFRS in a country. Important factors documented in the literature are the economic environment, political system, legal and tax system, financing system, and the professionalism level of the accounting profession.

The major economic factors influencing the adoption of IAS/IFRS encompass economic growth, ownership concentration and economic openness. In countries where the level of economic growth is relatively high, business and economic activities reach a size and complexity that requires more sophisticated accounting standards (Zeghal and Mhedhbi 2006). Al-Shammari et al. (2008) observe that economic growth motivates the adoption of IAS/IFRS in the Gulf Co-Operation Council Member States. Similarly, an economy with highly diffused ownership has a greater demand for high quality accounting

information. Therefore, such countries tend to adopt IAS/IFRS which are generally considered more sophisticated and superior to domestic accounting standards (Daske et al. 2008; Barth 2008). Empirical research conducted by Ding et al. (2007) shows that the extent of difference between domestic accounting standards and IAS/IFRS is significantly positively associated with countries' degree of ownership concentration. In addition, economic openness is another important external force behind the adoption of IAS/IFRS. Economic openness may be proxied by the level and number of foreign investors, multinational corporations, international accounting firms and world finance institutions' direct involvement. Empirical evidence shows that countries with a high degree of economic openness are more inclined to adopt IAS/IFRS (Hope, Jin, and Kang 2006; Judge, Li, and Pinsker 2010).

Political influence on the accounting system in a country depends on the extent of the government's involvement in standard setting and financial reporting practice (Ball, Robin, and Wu 2003). Chand and Patel (2008) claims that political difference amongst countries is an important reason for the variety of approaches to IAS/IFRS adoption, those are full adoption, selective adoption, or adoption with amendments and additions. Macías and Muiño (2011) research's results show that the private sector is usually more involved in the standard setting process in countries that fully adopt IAS/IFRS.

The legal system also has an important influence on the adoption of IAS/IFRS in a country. Regarding the impact on the orientation of accounting standards, legal sytem types are generally classified as 'common law' and 'code law'. The financial reporting framework in common-law countries is oriented towards the Anglo-Saxon model which emphasises investors' needs; whereas, financial reporting framework in code-law countries tends to focus more on the satisfication of regulatory needs (Ball, Robin, and Wu 2003; Ding et al. 2007; Branson and Alia 2011). Accordingly, code-law based accounting standards aligns with taxation-linked accounting rules (Branson and Alia 2011) while common-law based IAS/IFRS is more independent of tax reporting (Hung and Subramanyam 2007). Larson and Street (2004) find that the tax-driven nature of many national accounting systems is a major obstacle to IAS/IFRS adoption. Prather-

Kinsey, Jermakowicz, and Vongphanith's (2008) research draws the conclusion that common-law based accounting standards are more comparable to IAS/IFRS while code-law based accounting standards is more divergent from IAS/IFRS. This finding suggests that common-law countries have more favourable conditions for IAS/IFRS adoption.

International accounting divergence is also driven by differences in financing systems (Nobes 2006). Financing systems may be divided to two types: equity-outsider systems and credit-insider systems (Nobes 1998). The former is more concerned with outside shareholders/investors protection while the latter is oriented to meet creditors' needs (Nobes 1998). The aim of IAS/IFRS is to develop a highly transparent and equity market oriented accounting system (Ball, Kothari, and Robin 2000). Thus, IAS/IFRS is primarily designed to facilitate the equity-outsider system (Perera and Baydoun 2007). Empirical evidence shows that equity market oriented countries are more likely to adopt IAS/IFRS (Ding et al. 2007). By contrast, in a creditor-insider financing system, there is less pressure from capital market to publish high quality financial information (Perera and Baydoun 2007); therefore, the country does not have as great of an incentive to adopt IAS/IFRS.

The accounting profession is another institutional factor affecting the adoption of IAS/IFRS. The adoption of sophisticated IAS/IFRS requires a strong accounting profession, in particular, a well-developed accounting professional body, qualified accountants and high-quality accounting education. A well-developed accounting professional body is necessary to best facilitate the adoption of IAS/IFRS, keep up-to-date with revisions to the existing IAS/IFRS and new IFRS, and/or to make necessary amendments to IAS/IFRS for adapting to country-specific context (Chand and Patel 2008). In addition, the adoption of IAS/IFRS requires qualified and experienced accountants who are able to interpret and apply IAS/IFRS in a consisten manner, and to make necessary professional judgment (Carmona and Trombetta 2008; Chand and Patel 2008). Highly qualified accountants are supplied by a high-quality education system. Empirical evidence also shows a positive relationship between education level and the extent of IAS/IFRS adoption in developing countries (Zeghal and Mhedhbi 2006; Judge,

Li, and Pinsker 2010). The lack of well-established accounting profession and quality education system is a barrier to complete IAS/IFRS adoption in emerging economies (Chand and Patel 2008).

This thesis does not directly investigate institutional factors affecting IAS/IFRS adoption. Below is an overview summary of Vietnam's institutional context to enhance understanding of the enviroment in which Vietnamese accounting operates:

- Economic environment: As reported by the World Bank (2012), Vietnam is one of the fastest growing economies in the world. The private sector is growing more and more important, but the state sector still plays a dominant role in the economy. The economy thus is featured by high state ownership. Economic openness is improving. Joining the WTO in 2007 was a milestone for Vietnam in their goal of integration into the world economy.
- Political system: Vietnam is a communist country having a strong centralised system. The communist government controls all areas including accounting (Nguyen, Hooper, and Sinclair 2012). Accounting standards and other accounting regulations are promulgated by the Ministry of Finance.
- Legal system: The legal system in Vietnam is a code-law based system (Phan 2009). Similar to other code-law based countries, Vietnam's accounting system is oriented toward the rule-based and tax driven system under which accountants rigorously follow detailed rules, and professional judgment is not emphasised. Accounting rules closely align with taxation rather than satisfying investors' needs. Accountants' intention mostly focuses on tax outcomes (Nguyen, Hooper, and Sinclair 2012).
- Financing system: In Vietnam, banks are dominant players in finance markets while equity markets are newly established and still immature (Leung 2009). Thus, Vietnam's financing system is considered to be of the credit-insider system type. Consequently, Vietnamese accounting emphasises creditors' needs rather than investors' demands.
- Accounting profession: A profile of the accounting profession in Vietnam is clearly demonstrated by a survey based on interviewing 44 participants including government officers, professional accountants, bookkeepers, acadamics and other observers conducted by Nguyen, Hooper, and Sinclair (2012). The survey finds that the

Vietnamese Accounting Association (VAA) does not play an active role in accounting standards setting and accounting practice. Accountants in Vietnam do not seem to feel the necessity and usefulness of being VAA members. Certified public accountant (CPA) examinations are set by the Ministry of Finance instead of the professional associations. The government establishes the department of accounting policy (DAP) which is responsible for composing accounting regulations. However, the DAP staffs seem to have less than perfect knowledge of accounting practice, leading to a wide gap between accounting rules and accounting practices. Vietnam lacks professionally qualified accountants. It could be argued that universities in Vietnam mostly train students to be 'bookkeepers' rather than 'accountants' in the Western sense.

Based on prior institutional research, it can be concluded that the adoption of IAS/IFRS is not an easy task in Vietnam's institutional context. This thesis's findings of *de jure* and *de facto* compliance with IAS/IFRS in Vietnam will contribute to the literature a story of compliance with IAS/IFRS in a developing country characterised by high ownership concentration, high government intervention, code-law system, credit-insider financing system and a weaker accounting profession.

2.6 Thesis Contribution to the Literature

This chapter provides an overview of regulation theory and its links to accounting. Accounting is a highly regulated area; and accounting standards are one of main types of accounting regulation. In Vietnam, accounting standards are directly formulated by the government through the Ministry of Finance and thus oriented towards a rule-based approach. A major part of this chapter reviews approaches to quantify the extent of accounting convergence in both *de jure* and *de facto* perspectives, and key factors affecting the extent of *de facto* compliance with accounting standards in the literature.

Prior studies mostly investigate *de jure* (accounting standard) convergence only or *de facto* (company reporting) compliance with accounting standards only, but rarely investigate both *de jure* convergence and *de facto* compliance with IAS/IFRS.

Especially for countries where IAS/IFRS has been fully adopted, convergence studies solely focus on the *de facto* perspective. Yet, IAS/IFRS has not been fully adopted in Vietnam; therefore, a study addressing both *de jure* convergence and *de facto* compliance in Vietnam is crucially important. The *de jure* component of this thesis provides insights into VAS rules and its degree of similarity to IAS/IFRS; whereas the *de facto* component reflects the extent that Vietnamese companies adopt IAS/IFRS in practice.

This thesis adapts prior research approaches to more comprehensively measure the extent of *de jure* convergence of VAS with IAS/IFRS. A unique feature and an important contribution of this thesis approach to quantifying *de jure* convergence between two sets of accounting standards is that the three scores, specifically 'full convergence', 'partial convergence' and 'non-convergence', are separately calculated and then are combined into a single *de jure* convergence score. The 'full convergence', 'partial convergence' and 'non convergence' scores reflect the Vietnamese approach to convergence with IAS/IFRS, whereas the single *de jure* convergence score shows the convergence status in Vietnam.

De jure convergence analysis is expanded by a further investigation of the levels of *de facto* compliance with IAS/IFRS and VAS by listed companies in Vietnam. For the first time, the separate scores of *de facto* compliance with IAS/IFRS and with VAS by Vietnamese are calculated in this thesis. A comparison between each pair of relative scores better explains the divergence/convergence between VAS and IAS/IFRS and the use of IAS/IFRS by Vietnamese listed companies in practice. Another unique feature of this thesis is the exploration of linkages between *de jure* convergence and *de facto* compliance. The findings may assist in determining an appropriate course of action to improve convergence with IAS/IFRS in Vietnam.

It is believed that this thesis adds to the literature a little known story of convergence with IAS/IFRS in Vietnam, a fast growing economy characterised by high ownership concentration, high government intervention, a code-law system, credit-insider financing

system and a weak accounting profession, that may assist in improving process for introducing IFRS into emerging economies. In addition, this thesis contributes to the literature more comprehensive measures of *de jure* and *de facto* convergence between national accounting standards and IAS/IFRS.

This thesis examines two key independent variables explaining *de facto* compliance in the context of Vietnam. Those are company size, a key factor related to *de facto* compliance in prior studies (Ali, Ahmed, and Henry 2004; Akhtaruddin 2005; Al-Shammari, Brown, and Tarca 2008; Setyadi et al. 2008; Hodgdon et al. 2009), and state ownership, a dominant feature of the Vietnamese economy (World Bank 2012). In the next chapter, the hypotheses about relationships between the two independent variables and *de facto* company compliance are developed based on the agency theory supported by empirical evidence from prior compliance studies.

Chapter 3 Hypotheses Development

3.0 Introduction

This chapter begins with a discussion of agency theory links to accounting compliance in Section 3.1, followed by Section 3.2 with development of hypotheses about the effects of company size and state ownership on the level of *de facto* compliance with accounting standards by Vietnamese listed companies. In addition, based on prior compliance studies reviewed in Chapter 2, other factors that are likely to have effects on *de facto* compliance are considered as control variables in this thesis and are described in Section 3.3. The elucidation of independent and control variables in this chapter is to address the fourth research question: What factors help explain the levels of *de facto* company compliance in Vietnam?

3.1 Agency Theory

The separation of ownership and control in the modern diffused ownership corporation causes divergence between risk-bearing and decision functions (Fama and Jensen 1983b). In other words, managers do not bear a substantial share of the wealth effects of their decisions and therefore they may not act in the owners' best interest (Demsetz 1983). As owners cannot directly control their resources, they assign decision making authority to other persons (managers) and bind the managers to act in their best interest via a contract. The contractual relationship between owners (principal) and managers (agent) is the underlying basis of the agency theory. The agency relationship is defined as "a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent" (Jensen and Meckling 1976, 308). However, agency problems exist as contracts are not costlessly written and enforced (Fama and Jensen 1983a; Klein 1983). This is because it is unlikely to specify in advance responses by the transacting parties to all possible contingencies; and it may be costly to measure particular contractual performance and hence to specify contractually (Klein 1983).

Although agency models vary considerably in the literature, there are two common characteristics: conflicts of interest and information asymmetry between the parties (Kunz and Pfaff 2002).

Information asymmetry is a situation where some parties to business transactions may have information advantages over others. Scott (2009) distinguishes two major types of information asymmetry. The first is adverse selection arising because firm managers and other insiders know more information about the firm than outside investors. Therefore, managers and others insiders may exploit their information advantage at the expense of outsider investors. Accounting's role in controlling the adverse selection problem is to provide full disclosure of useful and cost-effective information to investors and other financial statement users. The second is the moral hazard that occurs because shareholders and creditors cannot oversee directly the extent and quality of top managers' efforts on their behalf. This enables the managers to shirk on effort and blame any deterioration of firm performance on factors beyond their control. To control moral hazards, the owners can offer the managers a share of reported net income to motivate them to work harder. In this case, however, the managers have a personal interest in using opportunistic accounting methods to maximise reported net income (Scott 2009). Accounting regulation's role in addressing this problem is to reduce the methods of accounting available that would otherwise be adopted to support such behaviour (Deegan 2009).

Conflicts of interest may occur between firm owners and managers, between controlling and minority shareholders, or between firm creditors and managers. In the context of owner-manager separation, managers who directly control corporate resources can potentially expropriate owners' funds by diverting resources for their personal use or by committing funds to unprofitable projects that provide private personal benefits (Lemmon and Lins 2003). Similarly, controlling shareholders have the power to expropriate funds from minority shareholders via participation in management. This problem is likely to happen in firms with high ownership concentration (La Porta, Lopez-de-Silanes, and Shleifer 1999). Evidence from Chinese listed companies reveals

that effect of ownership concentration on earnings management is highlighted in state-owned listed companies (Ding, Zhang, and Zhang 2007). This implies a similar problem may arise in Vietnamese listed companies that are characterised by high levels of state ownership. Agency conflict is also attributed to a bondholder-manager lending contract where managers are likely to act in the firm's interest rather than in the lenders' interest. Particularly, given managers share in the firm profits, covenant violation that can be costly to the firm will affect their welfare and therefore they will attempt to change accounting policies that decrease the probability of covenant violation (Scott 2009).

The combination of both asymmetric information and conflicts of interest may result in an efficiency loss, and then procedures and mechanisms are needed to mitigate this problem (Kunz and Pfaff 2002). Monitoring and bonding activities can control the agency problem. Monitoring activities include auditing, formal control systems, budget restrictions, and establishment of incentive compensation systems which align the managers' and the owners' interest. Bonding activities are to help guarantee to the outside shareholders that the managers would limit their activities which cost the firm. Bonding activities could be undertaken in such forms as contractual guarantees to have the financial accounts audited by an independent audit firm, and contractual limitations on the managers' decision making power (Jensen and Meckling 1976).

Particular contractual arrangements are considered to be efficient in aligning the interests of the various parties, therefore reducing agency cost for the firm. However, managers may opportunistically select those accounting methods that maximise their personal wealth as it is not possible or efficient to stipulate contractually in advance all accounting rules to be used in all circumstances (Deegan 2009). Thus, accounting regulation has an agency component. Additionally, principals cannot observe the detailed workings of firms' accounting and reporting systems, given separation of ownership and control (Scott 2009). Therefore, there is no good reason to believe that financial reports provided to outside shareholders, creditors, suppliers, etcetera, are always prepared in total accordance with accounting standards. Managers' incentives to comply with accounting standards could be explained based on agency theory. This

thesis thus employs agency theory supported by empirical evidence from prior studies to predict key factors associated with the extent of compliance with accounting standards (IAS/IFRS and IAS) by Vietnamese listed companies.

3.2 Hypotheses

This thesis considers company size and state ownership as independent variables affecting the extent of compliance with accounting standards by Vietnamese listed companies. This is because company size is highlighted as an important determinant of compliance with accounting standards in the literature; in addition state ownership is a uniquely important feature of Vietnamese listed companies. The following hypotheses predict the relationship between those independent variables and the extent of compliance with accounting standards by Vietnamese listed companies at the overall level as well as related measurement and disclosure categories.

3.2.1 Company Size and the Extent of *De facto* Company Compliance

Many prior studies conclude that company size has a positive association with the extent of compliance with IAS/IFRS, including Ali, Ahmed, and Henry (2004), Akhtaruddin (2005), Al-Shammari, Brown, and Tarca (2008), Setyadi et al. (2008), and Hodgdon et al. (2009). There are several reasons for this link. Watts and Zimmerman (1990) argue that company size is a proxy variable for political attention. Therefore, larger companies have more incentives to comply with accounting standards to protect their reputation and avoid government intervention (Ng and Koh 1993; Al-Shammari, Brown, and Tarca 2008).

Additionally, larger companies have more resources and more established reporting systems to better enable compliance with accounting standards (Ali, Ahmed, and Henry 2004; Al-Shammari, Brown, and Tarca 2008). Lang and Lundholm (1993) argue that disclosure costs decrease with firm size and therefore larger companies are likely to communicate more information than smaller companies. The broader view of disclosure–related costs include proprietary costs associated with disclosing information

which is useful to competitors, shareholders or employees in a way harmful to a firm's prospects (Verrecchia 1983). It could be argued that larger companies have a competitive advantage relative to smaller companies and are therefore less likely to be affected by disclosing proprietary information. As a result, larger companies tend to better comply with disclosure requirements (Al-Shammari, Brown, and Tarca 2008).

Moreover, larger companies are likely to attract more suppliers, customers and analysts and therefore the demand for information about activities of larger companies is greater than that of smaller ones (Wallace and Naser 1995). Especially in the modern diffused ownership corporation, larger companies are more likely to be characterised by a separation between owners and managers with a hypothesised higher level of compliance with accounting standards required by outside shareholders. A similar pattern can be expected for listed companies in Vietnam where the economy is moving from a centrally planned economy towards a market oriented economy.

The following hypotheses test the relationships between company size and the level of 'overall', 'measurement' and 'disclosure' *de facto* compliance with accounting standards by Vietnamese listed companies.

H1. *Company size is positively associated with the level of Vietnamese listed companies' overall de facto compliance with accounting standards.*

H1a. *Company size is positively associated with the level of Vietnamese listed companies' measurement de facto compliance with accounting standards.*

H1b. *Company size is positively associated with the level of Vietnamese listed companies' disclosure de facto compliance with accounting standards.*

3.2.2 State Ownership and the Extent of *De facto* Company Compliance

In the modern diffused ownership corporation, the firm's ownership structure is a primary determinant of the extent of agency problems between controlling insiders and outside investors (Lemmon and Lins 2003). The separation of ownership and control causes divergence between risk-bearing and decision functions (Fama and Jensen

1983b). This enables controlling insiders to expropriate funds from outside investors by diverting corporate resources for their personal use or by committing funds to unprofitable projects that provide their private benefits (Lemmon and Lins 2003; La Porta et al. 1997). As outside investors cannot observe the controlling insiders' activities, the controlling insiders may employ accounting practices to ensure that their unethical activities are unlikely to be explored.

A typical feature of the Vietnamese economy is high state ownership (World Bank 2012). Due to the process of state ownership enterprise (SOE) equitization initiated in Vietnam in 1992, state ownership declined sharply from 100% (World Bank 2012). Neverthless, the state remains a large shareholder and old inefficient management continues to dominate in almost all equitized state ownership firms (Sjoholm 2006; Hakkala and Kokko 2007; World Bank 2007). In such equitized firms, directors do not hold many shares. Therefore, they act as managers rather than owners of capital; and the company director is also the chairman of the management board (Gainsborough 2009). This suggests that Vietnamese listed companies with state ownership have weak corporate governance. From the perspective of agency conflict of interest, managers in Vietnamese listed companies with state ownership are unlikely to act in the broader shareholders' best interest. Thus, Vietnamese companies with higher levels of state ownership may have less incentive to comply with accounting standards. This view is supported by an empirical research noting a negative association between the level of state ownership and demand for high quality audits in China's stock market (Chan, Lin, and Zhang 2007), implying that companies with higher levels of state ownership are less likely to comply with accounting standards.

The following hypothesis tests the relationships between the level of state ownership and the level of 'overall', 'measurement' and 'disclosure' *de facto* compliance with accounting standards by Vietnamese listed companies.

> ***H2****. The level of state ownership is negatively associated with the level of Vietnamese listed companies' overall de facto compliance with accounting standards.*

***H2a**. The level of state ownership is negatively associated with the level of Vietnamese listed companies' measurement de facto compliance with accounting standards.*

***H2b**. The level of state ownership is negatively associated with the level of Vietnamese listed companies' disclosure de facto compliance with accounting standards.*

3.3 Control Variables

This thesis also examines profitability, leverage, industry, stock exchange location, audit firm type, international links and business complexity as control variables possibly affecting the level of Vietnamese listed companies' compliance with accounting standards. As discussed below these control variables are often used in accounting compliance studies.

Agency theory suggests that accounting profit based bonus schemes may induce managers to manipulate the related accounting number to maximise their rewards (Deegan 2009). This theoretical explanation implies a negative relationship between profitability and measurement *de facto* compliance with accounting standards. From the perspective of political cost, high profitability firms draw adverse and costly attention to the firm, and therefore they tend to comply with disclosure requirements to avoid political costs (Watts and Zimmerman 1978; 1986). In addition, managers of companies with high profitability have incentives to disclose information signalling their superior performance to shareholders as this therefore helps to enhance their management position (Inchausti 1997). This implies that higher profitability firms are likely to have a higher level of *de facto* compliance with disclosure requirements. This view is supported by empirical evidence from the Czech Republic (Patton and Zelenka 1997), Zimbabwe (Owusu-Ansah 1998) and South Asian countries including India, Pakistan and Bangladesh (Ali, Ahmed, and Henry 2004).

Agency costs also arise from the conflict between debtholders and managers who act in the shareholders' interest rather than the debtholders' interest, given the managers share the firm's profit (Jensen and Meckling 1976). Debt contracts are often subject to certain restrictive covenants to assure the creditors that the managers cannot expropriate their wealth. The debt covenant hypothesis predicts that the closer a firm is to violation of accounting-based debt covenants, the more likely it is to select accounting procedures to avoid covenant constraint (Deegan 2009). This implies a negative relationship between leverage and *de facto* compliance with measurement rules. With regard to disclosure, Al-Shammari, Brown, and Tarca (2008) argue that companies with higher leverage tend to disclose more information to reassure debtholders that their interests are protected, and to meet higher demands of information to assess investment risk of the shareholders. Their empirical findings show that leverage has a positive association with the level of *de facto* compliance with IAS/IFRS.

Industry type is also sensitive to political cost (Watts and Zimmerman 1978) and hence companies operating in a more politically vulnerable industry may have more incentive to disclose information. Additionally, proprietary costs vary among industries with different levels of competition (Verrecchia 1983; Ferguson, Lam, and Lee 2002). In particular, Ferguson, Lam, and Lee (2002) note that the wholly state-owned Chinese firms listed on the Stock Exchange of Hong Kong disclose significantly more strategic and financial information than other firms listed on the Stock Exchange of Hong Kong because most of the wholly state-owned Chinese firms operate in strategic industries and are protected by the Chinese government from competition. Similar patterns can be expected for Vietnamese listed companies where strategic industries are heavily controlled and protected by the Vietnamese government (World Bank 2012). Some studies, for example, Wallace and Naser (1995) and Al-Shammari, Brown, and Tarca (2008), document a significant relationship between industry type and the extent of *de facto* company compliance with accounting standards.

Some previous studies such as Street and Bryant (2000), Street and Gray (2002), Glaum and Street (2003), indicate a relationship between stock exchange location and the extent

of *de facto* company compliance with accounting standards. There are two stock exchanges in Vietnam: the Ha Noi Stock Exchange (HNX) and the Ho Chi Minh Stock Exchange (HOSE). A difference in listing requirements between the two stock exchanges is that the minimum charter capital calculated at book value required for a joint stock company at the time of application for listing on the Ha Noi Stock Exchange is 10 billion Vietnamese dong (VND) while that requirement for listing on the Ho Chi Minh Stock Exchange is VND 80 billion[11] (Ha Noi Stock Exchange 2005; Ho Chi Minh Stock Exchange 2007). However, it does not necessarily mean that the stock exchange location variable is captured by company size as companies with large charter capital (greater than VND 80 billion) can be listed on the Ha Noi Stock Exchange. In addition, the strength of regulation enforcement may be different between the two stock exchanges. The Ho Chi Minh Stock Exchange was established two years earlier than the Ha Noi Stock Exchange; therefore, the supervision system in the Ho Chi Minh Stock Exchange may be more effective. Arguably, it can be expected that companies listed on the Ho Chi Minh Stock Exchange have a higher level of *de facto* compliance with accounting standards than companies listed on the Ha Noi Stock Exchange.

Auditing is considered as a mechanism for controlling agency conflicts between shareholders and managers (Jensen and Meckling 1976; Watts and Zimmerman 1978). It is argued that companies having their financial reports audited by larger audit firms are under more pressure to comply with accounting standards because larger audit firms have better quality control policies and procedures (Ng and Koh 1993), and are more independent (Wallace and Naser 1995). Some previous studies provide evidence of a positive association between big independent audit firms and the extent of *de facto*compliance with accounting standards, such as Ng and Koh (1993), Street and Gray (2002), Glaum and Street (2003), and Hodgdon et al. (2009). This thesis also examines the effect of audit firm type on *de facto* compliance with accounting standards by Vietnamese listed companies.

[11] Charter capital is defined by Vietnam's company law (No 60/2005/QH11) as "the amount of capital that is contributed and committed to contribute by shareholders and members of a company and is stated in the company's charter" (Article 4.6)

Companies with international links need to make their financial reports highly transparent and comparable; and thus have an incentive for greater compliance with accounting standards. Street and Bryant (2000), Street and Gray (2002), Glaum and Street (2003), Ali, Ahmed, and Henry (2004), Al-Shammari, Brown, and Tarca (2008), and Bova and Pereira (2012) document empirical evidence of significant relationships between international links and *de facto* company compliance with accounting standards. International links may involve foreign customers, foreign suppliers, foreign ownership, foreign subsidiaries or foreign stock exchange listing. Due to data availability and international links relevant to Vietnamese listed companies, this thesis examines the effect of foreign ownership on *de facto* compliance with accounting standards by Vietnamese listed companies.

This thesis also investigates the effect of business complexity on the level of *de facto* compliance with accounting standards by Vietnamese listed companies. It is argued that the application of accounting standards is more complicated for companies involved in more complex business activities. Therefore, it is expected that the business complexity is a possible factor affecting the level of *de facto* company compliance with accounting standards in Vietnam.

This thesis thus hypothesises the effect of two independent variables (company size and state ownership) and examines seven control variables (profitability, leverage, industry, stock exchange location, audit firm type, foreign ownership and business complexity) on the levels of overall, measurement and disclosure compliance with accounting standards by Vietnamese listed companies.

3.4 Summary

This chapter analyses agency theory links to accounting compliance. Employing agency theory supported by empirical evidence from prior studies, it is expected that the extent of *de facto* compliance with accounting standards by Vietnamese listed companies have a positive association with company size, but a negative association with state ownership

for overall compliance as well as its two sub-components (measurement and disclosure). This thesis also controls for the effect of profitability, leverage, industry categories, stock exchange location, audit firm type, foreign ownership and business complexity. The next chapter presents the overall research approach including measures of the independent and control variables explained in this chapter.

Chapter 4 Research Approach

4.0 Introduction

This chapter describes the thesis approach to quantifying *de jure* convergence and *de facto* compliance in Section 4.1 and Section 4.2 respectively. The measures of independent and control variables are explained in Section 4.3. The overall research design is presented in Section 4.4, describing sample selection and statistical techniques employed for the main, sensitivity and additional analyses.

4.1 Quantification of *De jure* Convergence

De jure convergence scores are created to quantify the extent of standard-by-standard *de jure* convergence of VAS and IAS/IFRS. Two time-period-based *de jure* convergence scores are calculated. The first time-period-based score quantifies the extent of *de jure* convergence between VASs and old IAS/IFRSs which are the latest IAS/IFRS versions issued/revised before equivalent VASs were issued, whereas the second time-period-based score quantifies the extent of *de jure* convergence of VAS and current IAS/IFRS which were effective as at 31 December 2010[12]. The first time-period-based score reflects the extent of *de jure* convergence of VAS and IAS/IFRS at the issuance dates of VAS while the second time-period-based score indicates the extent of *de jure* convergence of VAS and IAS/IFRS at the latest data acquisition date of this research. The difference between the two scores thus depicts the widening regulatory gap between IAS/IFRS and VAS over the time period. The two scores are calculated by the approach listed below.

In this research, principal (bold type) paragraphs of each standard are analysed into the detail of each possible item. Each item is categorised as 'full convergence', 'partial convergence' or 'non-convergence'. The 'full convergence' category includes items exactly matched between VAS and IAS/IFRS, whereas the 'non-convergence' category

[12] This date is also chosen for consistency as the *dejure* analysis was conducted in 2010.

includes the items where the accounting treatment is totally different between VAS and IAS/IFRS for an item or where an item is regulated by IAS/IFRS only or VAS only. The 'partial convergence' category consists of the items where accounting requirements are neither exactly matched nor are totally different between VAS and IAS/IFRS. All items within each standard are weighted equally as the weight of the importance of an accounting standard is measured through the number of items in a category of requirements (Rahman, Perera, and Ganeshanandam 1996). Another argument for equal weighting of standard items is that accounting information is provided to all users of financial reports rather than any one particular user group (Akhtaruddin 2005). Arguably, this approach minimises subjectivity.

The 'full convergence', 'partial convergence' and 'non-convergence' scores are then calculated for each standard as a ratio of the number of items in each category to total applicable items within each standard. A total of applicable items within each standard is the sum of 'full convergence', 'partial convergence' and 'non-convergence' items. Each score is further split into their measurement and disclosure components.

A single *de jure* convergence score is also calculated for each standard at the overall level as well as the measurement and disclosure sub-categories. For this purpose, the extent of convergence of VAS and IAS/IFRS for each item is quantified within a 0-1 item score range. At the extreme positions, a 'full convergence' item is coded as '1' while a 'non-convergence' item is coded as '0'. A 'partial convergence' is measured at a point between the range of '0' and '1' depending on the extent of similarity between VAS and IAS/IFRS for the item. A complicated item may be further analysed into sub-items coded as a '1' (same sub-item between the two accounting standards' systems) or '0' (different sub-item) sub-item score; then the item score is calculated as a ratio of the sum of sub-item scores to total sub-items within the item.

In the scoring process, logical assumptions are used in some specific circumstances where appropriate. The following assumptions are consistently employed for all standards' scoring:

- In the circumstance where IAS/IFRS specifies 'benchmark treatment' and 'allowed alternative treatment' for a measurement item while VAS allows only one measurement method, the item score is awarded a 0.75 score if VAS adopts the IAS/IFRS 'benchmark treatment', or a 0.25 score if VAS adopts the IAS/IFRS 'alternative treatment'. This is because the 'benchmark treatment' which is the preferred method of IASB is considered more important than the 'allowed alternative treatment'.
- In any circumstance where IAS/IFRS allows two equal options of accounting for an item while VAS adopts only one of the two IAS/IFRS options, the item score is given a 0.5 score.
- Where an item is required to be recognised as 'directly to equity' by VAS[13], but is to be recognised as 'other comprehensive income' under IAS/IFRS, it is deemed to be a 0.75 score.
- A disclosure item is considered as 'partial convergence' where the disclosure item is required to be presented as a line item by IAS/IFRS, but is required to be split into more than one component and presented as separate line items by VAS or vice versa. For instance, the IASB standard 'Presentation of Financial Statements' requires an entity to disclose 'financial assets' as a line item in its Statement of Financial Position while VAS requires 'financial assets' to be presented in two line items: 'financial assets held primarily for trading purposes or for the short-term' and 'financial assets held primarily for the long-term'. This disclosure item is thus considered as 'partial convergence' and is scored at 0.5.

In order to avoid IAS/IFRS bias reflected in certain prior *de jure* studies (e.g. Ashbaugh and Pincus 2001; Ding et al. 2007; Peng and van der Laan Smith 2010), the *de jure* convergence scoring is based on looking at accounting rules from two directions: the content of both VAS and IAS/IFRS. In the circumstance where an accounting item is

[13] Unlike IAS/IFRS, VAS does not classify items recognised directly to equity (outside profit and loss) into 'other comprehensive income' or changes in equity as a result of 'transaction with owners in their capacity as owners'.

required by VAS or old IAS or current IAS but is silent in one or two of them, the item score is decided as per the criteria listed in the templates shown in Table 4.1.

Table 4.1 Template Criteria

VAS	Old IAS	Current IAS/IFRS	Item Score	
			VAS vs Old IAS/IFRS	VAS vs Current IAS/IFRS
Silent	1 item	Silent	0	n/a
Silent	1 item	1 item	0	0
Silent	Silent	1 item	n.a	0
1 item	Silent	1 item	0	1
1 item	Silent	Silent	0	0
1 item	1 item	Silent	1	0

Source: Decision criteria evolved for this thesis by the author.

The measurement, disclosure and overall *de jure* convergence scores are calculated separately for each standard as a ratio of the sum of (measurement, disclosure and overall) item scores to total applicable (measurement, disclosure and overall) items within each standard. Thus, the *de jure* convergence score ranges from 0% to 100% with 100% representing complete uniformity of rules between IAS and VAS and 0% representing complete diversity. A detailed example of the process of quantifying *de jure* convergence is provided for the standard 'Borrowing Costs'[14] (see Appendix B). This is a good example for quantifying *de jure* convergence score as it includes both measurement and disclosure elements, and incorporates a variety of scenarios for item categories such as full convergence, partial convergence and non-convergence.

4.2 Quantification of *De facto* Compliance (Dependent Variables)

Six separate compliance indices are calculated examining VAS and IAS/IFRS *de facto*compliance separately as an overall aggregate score and then further categorised into separate measurement and disclosure scores. Two item checklists are constructed separately for VAS and IAS/IFRS. Principal (bold type) paragraphs of each standard are

[14] Due to the length limit of the thesis, the full detailed process of quantifying *de jure* convergence for all standards is not presented here, but will be provided upon request. An extensive example is provided in Appendix B.

analysed into the detail of each possible item. This establishes the VAS checklist of 832 items and IAS/IFRS checklist of 1085 items. Each item is categorised as 'compliance' (100%), 'non-compliance' (0%) or 'non-applicable' (n.a). The compliance checklists are illustrated in Appendix C using the standard 'Borrowing Costs' as an example[15]. The selection of this standard is consistent with the example for the scoring process of *de jure* convergence described in Appendix B.

In the circumstances where information relating to a measurement item is not communicated in the company's annual financial reports, the item is categorised as 'non-applicable'. When a disclosure item is not presented in the company's annual financial reports, logical reasoning is employed to categorise the item as 'non-compliance' or 'non-applicable'. In particular, the whole annual report of each company is read carefully to help understand the nature of the company's activity and then deciding whether the undisclosed item is applicable to the company. This approach is consistent with many prior studies such as Cooke (1989), Marston and Shrives (1991), Street and Bryant (2000), Street and Gray (2002), Ali, Ahmed, and Henry (2004), Yeoh (2005), Abdelsalam and Weetman (2007), Al-Shammari, Brown, and Tarca (2008), and Ho (2009).

The six compliance indices (see Table 4.2) are calculated under the assumption that the importance of each standard is weighted by the number of required items relative to the standards. In other words, each standard item is weighted equally. This approach is supported because annual financial reports are provided to all users rather than any one particular user group (Akhtaruddin 2005) and it minimises subjectivity (Abdelsalam and Weetman 2007). This approach is also consistent with the approach employed by many prior compliance studies such as Tower, Hancock, and Taplin (1999), Taplin, Tower, and Hancock (2002), Street and Bryant (2000), Street and Gray (2002), Glaum and Street (2003) and Al-Shammari, Brown, and Tarca (2008).

[15] Due to the length limit of the thesis, the full compliance checklists for all standards is not presented here, but can be provided upon request. An extensive example is provided in Appendix C.

The measurement, disclosure and overall *de facto* compliance indices are separately calculated for each listed company as the ratio of total items complied with by the company to total items applicable to the company. The compliance indices are defined as the key dependent variables and summarised in Table 4.2.

Table 4.2 Measurement of Dependent Variables

Dependent variables	Measurement	Type of Data
VAS overall *de facto* compliance index (VCI)	Total VAS items complied with by the company/Total applicable VAS items	Continuous
VAS measurement *de facto* compliance index (VCI.M)	Total VAS measurement items complied with by the company/Total applicable VAS measurement items	Continuous
VAS disclosure *de facto* compliance index (VCI.D)	Total VAS disclosure items provided by the company/Total applicable VAS disclosure items	Continuous
IAS/IFRS overall *de facto* compliance index (ICI)	Total IAS/IFRS items complied with by the company/Total applicable IAS/IFRS items	Continuous
IAS/IFRS measurement *de facto* compliance index (ICI.M)	Total IAS/IFRS measurement items complied with by the company/Total applicable IAS/IFRS measurement items	Continuous
IAS/IFRS disclosure *de facto* compliance index (ICI.D)	Total IAS/IFRS disclosure items provided by the company/Total applicable IAS/IFRS disclosure items	Continuous

Each of the above six variables are the constructs used to test their related hypotheses presented in Chapter 3.

4.3 Measurement of Independent and Control Variables

As independent and control variables have been calculated in a number of different ways in the literature, this thesis derives independent and control variables using acceptable alternatives for the main and sensitivity analyses to investigate whether there is any fundamental differences when constructs are measured differently. The measurement of

the two independent variables (company size and state ownership) and seven control variables (profitability, leverage, industry, stock exchange location, audit firm type, foreign ownership and business complexity) are explained in this section.

4.3.1 Company Size

Company size may be proxied by total assets, sales, capital employed, firm value or market capitalisation. Tower, Hancock, and Taplin (1999), Street and Bryant (2000), Taplin, Tower, and Hancock (2002), Setyadi et al. (2008), Al-Shammari, Brown, and Tarca (2008) use total assets; Glaum and Street (2003) use the natural logarithm of firm value[16]; Akhtaruddin (2005) uses capital employed and annual sales; Abdelsalam and Weetman (2007) use total sales and total assets; Al-Shammari, Brown, and Tarca (2008) use total assets, total sales and market capitalisation.

Consistent with most previous studies, this thesis uses the natural logarithm of total assets in Vietnamese dong (VND) as a proxy for company size in the main analysis. The natural logarithm transformation is applied to reduce the skewness in the data set (Kinnear and Gray 2009). Alternatively, the natural logarithm of market capitalisation is used as a proxy for company size in the sensitivity analysis because market capitalisation, unlike total assets, represents an external measure of a company's importance in the perspective of the investing public (Wallace and Naser 1995).

4.3.2 State Ownership

This thesis adopts the most commonly used approach for measuring ownership concentration as used in prior compliance studies to measure state ownership of Vietnamese listed companies. For instance, Al-Shammari, Brown, and Tarca (2008) use the ratio of the number of shares owned by institutional investors to total shares at year-end in their main analysis; and use the proportion of government ownership for their robustness tests. Abdelsalam and Weetman (2007) categorise companies listed on the

[16] Glaum and Street (2003) measure firm value by summing the market value of equity and book value of debt.

Egyptian stock exchange into majority government ownership companies and majority private sector ownership companies. For the main analysis, this thesis measures the level of state ownership of a company as a ratio of shares owned by the state to total outstanding shares of the company at year-end. Alternatively, for the sensitivity analysis, state ownership is treated as a dichotomous variable coded as '1' if the level of the state ownership is 20% or higher, or as '0' if the level of the state ownership is lower than 20%. The benchmark of 20% is used because this ownership level is sufficient for 'significant influence' as commonly noted in accounting standards.

4.3.3 Control Variables

As discussed earlier, this thesis also examines profitability, leverage, industry, stock exchange location, audit firm type, foreign ownership and business complexity as control variables affecting the level of Vietnamese listed companies' compliance with accounting standards. Measurement of these control variables is discussed below.

Some prior compliance studies use the ratio of return on assets (ROA) as a proxy for profitability (Tower, Hancock, and Taplin 1999; Taplin, Tower, and Hancock 2002; Setyadi et al. 2008), while others employ the ratio of return on equity (ROE) to measure profitability (Street and Bryant 2000; Street and Gray 2002; Abdelsalam and Weetman 2007; Al-Shammari, Brown, and Tarca 2008). Akhtaruddin (2005) uses the ratio of net profit on sales additional to ROE. Al-Shammari, Brown, and Tarca (2008) calculate ROA and the ratio of cash flow from operations on total assets as alternative measures of profitability for robustness purposes. This thesis measures profitability by ROA for the main analysis and by ROE for the sensitivity analysis as these measures are more commonly employed in prior compliance studies. Consistent with the past literature, this thesis use net profit before tax to calculate ROA and ROE.

Leverage is usually measured as the ratio of debt to equity or the ratio of debt to total assets. However, there are some differences in calculation of those ratios. Tower, Hancock, and Taplin (1999) and Taplin, Tower, and Hancock (2002) use the ratio of

long-term debt to total equity while Abdelsalam and Weetman (2007) employ the ratio of total debt to total equity. Al-Shammari, Brown, and Tarca (2008) use the ratio of total debt to total debt plus equity. They measure as market value in their main analysis and as book value for their robustness tests. Setyadi et al. (2008) calculate the ratio of book value of total debt to book value of total assets. This ratio is also employed as a proxy of leverage for the main analysis in this thesis. Alternatively, the ratio of book value of long-term debt to book value of total assets is used for the sensitivity analysis. Both the debt and asset figures are measured by book value due to consistency of the measure and availability of the data.

Consistent with Al-Shammari, Brown, and Tarca (2008), this thesis calculates foreign ownership in a company as a proportion of foreign shares to total outstanding shares of the company at year-end for the main analysis. Alternatively, for the sensitivity analysis, foreign ownershipis proxied by adichotomous variable coded as '1' if the level of foreign ownership is equal to or greater than 5%, or as '0' if the level of foreign ownership is lower than 5%. The benchmark of 5% is selected because the majority of Vietnamese listed companies have foreign shareholders with very low ownership level[17].

In Vietnam, listed companies are required to have their annual financial reports audited by an independent audit firm accepted by the State Securities Committee. The acceptable independent audit firms include certain international and local audit firms. Empirical evidence from other countries shows that big independent audit firms (Big5 or Big5+2) are positively associated with *de facto* company compliance with accounting standards (e.g. Street and Gray 2002; Glaum and Street 2003; Hodgdon et al. 2009). At the present time, the big-four audit firms, namely PricewaterhouseCoopers, Deloitte Touche Tohmatsu, Ernst and Young, and KPMG, are globally recognised as the four largest independent audit firms. The big-four audit firms have an increasing influence in Vietnam (Big4 2012). Therefore, this thesis categorises acceptable independent audit firms in Vietnam as big-four and non-big-four audit firms. Audit firm type is treated as a

[17] There are 141 companies out of 200 companies in the thesis sample that have a lower than 5% foreign ownership amount.

dichotomous variable coded as '1' if the company's annual financial reports are audited by one of the big-four audit firms, or as '0' if the company's annual financial reports is audited by a non-big-four audit firms. This measure is used for both the main and sensitivity analyses.

As explained in Chapter 3, stock exchange location is a possible factor affecting *de facto* compliance with accounting standards by Vietnamese listed companies because the difference in maturity of stock exchanges may lead to the variation in effectiveness of supervision systems. There are only two stock exchanges in Vietnam: Ha Noi Stock Exchange and Ho Chi Minh Stock Exchange. Therefore, stock exchange location is proxied by a dichotomous variable coded as '1' if the company listed on the Ha Noi Stock Exchange or '0' if the company is listed on the Ho Chi Minh Stock Exchange.

Prior studies categorise industries in different ways. Many *de facto* compliance studies group companies according to main industries in a country or in regions (e.g. Taplin, Tower, and Hancock 2002; Al-Shammari, Brown, and Tarca 2008; Setyadi et al. 2008),whereas some disclosure studies categorise companies into 'high profile' and 'low profile' (Patten 1991; Roberts 1992; Meek, Roberts, and Gray 1995; Hackston and Milne 1996). In this thesis's main analysis, Vietnamese listed companies are grouped into two main industries: manufacturing and non-manufacturing. These categories are also used by Street and Bryant (2000). It is argued that manufacturing and non-manufacturing sectors are obviously different in the nature of their business and therefore accounting measurement and disclosure requirements are fundamentally different between the two sectors. These categories are suitable for Vietnam where, to a certain extent, accounting standard requirements are different between manufacturing and non-manufacturing sectors, and there are no specific accounting standards for typical industries such as agriculture and extractive concerns. A company's industry is defined as "the main economic activity in which it derives its revenue" (Owusu-Ansah 1998, 614). If a company engages in both manufacturing and non-manufacturing activities, the company's industry will be identified according to the activity making the majority contribution to the company's revenue. Alternatively, in the sensitivity

analysis, industries that are categorised as high profile and low profile are coded as ‘1’ and ‘0’ respectively. High-profile industries are defined as those with consumer visibility, high political risk or high competition (Roberts 1992). Consistent with previous studies (Patten 1991; Roberts 1992; Meek, Roberts, and Gray 1995; Hackston and Milne 1996), high-profile industries include oil and gas, chemical, forest and paper product, extractive, agriculture, tobacco, liquor, media and communication, and technologies.

Another control variable examined in this thesis is business complexity. In the main analysis, this control variable is measured by the number of accounting standard items applicable to a company as it is believed that a more complex business has more items to be presented in its annual financial statements and therefore it has to comply with more accounting requirements. In the sensitivity analysis, business complexity is remeasured as a dichotomous variable coded as ‘1’ if the company has at least one subsidiary or ‘0’ it has not any subsidiaries. Cooke (1989) examines the effect of the number of subsidiaries owned by a Swedish company on the extent of disclosure in its corporate annual financial reports. However, it is argued that accounting standard requirements for preparing consolidated financial statements are the same for all parent companies irrespective of how many subsidiaries they have. Therefore, this thesis classifies Vietnamese listed companies into two groups: companies with at least one subsidiary and companies without subsidiaries for the sensitivity analysis.

The measurement of independent and control variables is summarised in the Table 4.3.

Table 4.3 Measurement of Independent and Control Variables

Variables	Main analysis	Sensitivity Analysis
Independent variables		
Company size	Natural logarithm (Ln) of total assets	Ln of market capitalisation
State ownership	Number of shares owned by the state divided by total outstanding shares at the year end.	1 = the level of the state ownership is 20% or higher 0 = the level of the state ownership is lower than 20%
Control variables		
Profitability	ROA = Net profit before tax divided by total assets	ROE = Net profit before tax divided by total owners' equity
Leverage	Total liabilities divided by total assets	Total long-term liabilities divided by total assets
Audit firm type	1 = big-four; 0 = non-big-four	Unchanged
Stock exchange location	1 = HNX; 0 = HOSE	Unchanged
Foreign ownership	Number of shares owned by foreign shareholders divided by total outstanding shares at the year end.	1 = the level of foreign ownership is 5% or higher 0 = the level of foreign ownership is lower than 5%
Industry	1 = manufacturing 0 = non-manufacturing	1 = high profile 0 = low profile
Business complexity	Number of applicable accounting standard items.	1 = having at least one subsidiary 0 = having no subsidiary

Legend: HNX: Ha Noi Stock Exchange; HOSE: Ho Chi Minh Stock Exchange.

4.4 Research Design

4.4.1 Sample Selection

The 31 December 2010 annual financial reports of a sample of 200 Vietnamese listed companies are examined to identify the extent of *de facto* compliance with VAS as well as IAS/IFRS and its relationships with the key predictor variables. The population of 577 Vietnamese listed companies excluding banks and financial institutions are first stratified according to the stock exchange location as companies in the two stock

exchanges may be fundamentally different[18]. Accordingly, a sample of 100 listed companies is randomly selected from each stock exchange; this comprises the total sample population of 200. The 31 December 2010 annual financial reports of the sample companies are collected from the website http://www.hnx.vn for companies listed on the Ha Noi Stock Exchange and from http://www.hsx.vn for companies listed on the Ho Chi Minh Stock Exchange.

4.4.2 *De jure* Convergence Analysis

This thesis analyses standard-by-standard similarities and differences between VAS and IAS/IFRS. For each standard, similarities and differences are derived and calculated as an overall *de jure* convergence score as well as measurement and/or disclosure sub-categories. Measurement and disclosure issues are studied separately because such an approach will provide deeper insights of differences in each (Rahman, Perera, and Ganeshanandam 1996).

The first research question (What is the level of overall, measurement and disclosure *de jure* convergence of VAS with IAS/IFRS?) is answered with descriptive statistics evolving 0-100% *de jure* convergence scores. Two types of *de jure* convergence means are calculated, namely, mean1 and mean2. Mean1 is calculated under the assumption that each standard is weighted by the number of items, reflecting the level of *de jure* convergence of the 25 VAS standards and their equivalent IAS/IFRS. Mean2 is calculated under the assumption of every standard being weighted equally, reflecting the average level of standard-by-standard *de jure* convergence. These figures are presented for three levels: overall, measurement and disclosure. A one-sample T-test is employed to compare the mean (mean2) of the overall *de jure* convergence score with the stated Vietnamese desired convergence score (90%). In addition, paired sample T-tests are applied to compare the means of *de jure* convergence score of VAS with old IAS/IFRS

[18] This thesis excludes the finance sector (banks and financial institutions) companies listed on either Vietnamese stock exchange because this sector employs an accounting system different from the uniform accounting system applicable to other sectors in Vietnam.

and *de jure* convergence score of VAS with current IAS/IFRS, and also to compare the means of measurement and disclosure *de jure* convergence scores.

4.4.3 *De facto* Compliance Analysis

4.4.3.1 Main Analysis

Descriptive statistics are used to answer the second and third research questions concerning the levels of *de facto* compliance with VAS and IAS/IFRS respectively by Vietnamese listed companies. Specifically, the minimum, maximum, mean, and standard deviation are presented for the six dependent variables. In addition, paired sample T-tests are applied to analyse insights into the differences between measurement and disclosure compliance indices and between VAS and IAS/IFRS compliance indices. Furthermore, the levels of *de facto* company compliance are calculated for individual IAS/IFRS standards and VAS standards. Then, a standard-by-standard comparison between IAS/IFRS *de facto* compliance and VAS *de facto* compliance is made to investigate further convergence/divergence between VAS and IAS/IFRS. In addition, one-sample T-tests are employed to examine whether VAS and IAS compliance indices satisfy the benchmark figures.

The fourth research question (What factors help explain the level of *de facto* company compliance with accounting standards in Vietnam?) is best addressed via statistical analysis such as parametric tests (T-test and ANOVA) and/or non-parametric (Mann-Whitney and Kruskal-Wallis tests) and multiple regressions to examine the relationships between the predicted factors (independent and control variables as detailed in Table 4.3) and the level of *de facto* compliance (dependent variables as detailed in Table 4.2). Parametric and non-parametric tests are employed to investigate the relationship between individual predictors (independent and control variables) and dependent variables, whereas multiple regressions are used to examine the relationships between a combination of the predicted factors and the dependent variables, and used as the primary analysis for the hypotheses testing in the context of Vietnam.

4.4.3.2 Sensitivity Analysis

Sensitivity analysis is conducted to generate a better understanding of whether the results will change fundamentally if the independent and control variables are alternatively remeasured where appropriate as detailed in Table 4.3. This sensitivity analysis advances further insights about *de facto* company compliance with accounting rules in Vietnam. The same regression procedures employed in the main analysis are applied to the sensitivity analysis with the alternative measures of certain independent and control variables.

4.4.3.3 Additional Analysis

Additional analysis is conducted separately for the Ha Noi and Ho Chi Minh stock exchanges' sub-samples. The same regression procedures and measures of variables used in the main analysis are employed in the additional analysis. This helps explore fundamental differences in explanatory factors of *de facto* company compliance between the two stock exchanges.

4.4.4 Comparing *De jure* Convergence and *De facto* Compliance

The final research question (Is *de jure* convergence related to *de facto* company compliance in Vietnam?) is explored employing Pearson correlation tests. It is expected that *de facto* compliance with IAS/IFRS not only depends on *de jure* convergence of VAS with IAS/IFRS, but also is affected by the level of *de facto* compliance with VAS by Vietnamese listed companies. Multiple regressions are further used to explore the relationships between *de facto* company compliance with IAS/IFRS (dependent variable) and the combination of *de jure* convergence of VAS with IAS/IFRS and *de facto* company compliance with VAS (independent variables).

4.5 Summary

This chapter describes the approaches for quantifying the extent of *de jure* convergence between VAS and IAS/IFRS and *de facto* compliance with VAS and IAS/IFRS by Vietnamese listed companies, and for investigating factors affecting *de facto* company compliance with accounting standards (VAS and IAS/IFRS) as well as the linkages between *de jure* convergence and *de facto* compliance. *De jure* convergence and *de facto* compliance scores are calculated at the overall level and then further demarcated into measurement and disclosure components.

Descriptive statistics are employed to analyse the extent of *de jure* convergence and *de facto* compliance. T-tests are used to analyse *de jure* convergence in depth, whereas various parametric and non-parametric tests and multiple regressions are employed to test the hypotheses and the control variables' effect on *de facto* compliance. A sensitivity analysis is also conducted to gain better understanding of the impact of predictor variables on *de facto* compliance with accounting rules in Vietnam. Such approaches are applied to a stock exchange stratified random sample of 200 listed companies' 2010 annual financial reports in Vietnam. Additional multiple regressions are partitioned and employed separately for the two stock exchange sub-samples in Vietnam. Finally, further correlation tests and multiple regressions are used to explore the linkages between *de jure* convergence and *de facto* compliance.

The research approaches explained in this chapter are applied to generate relevant results answering the first research question in Chapter 5, the second, third and fourth questions in Chapter 6, and the final question in Chapter 7.

Chapter 5 *De jure* Convergence Results

5.0 Introduction

This chapter analyses results of *de jure* convergence between 25 VASs and their equivalent IAS/IFRSs, answering the first research question: What is the level of overall, measurement and disclosure *de jure* convergence of VAS with IAS/IFRS? Two time-period-based *de jure* convergence scores are calculated. The first time-period-based score reflects the extent of *de jure* convergence of VAS and old IAS/IFRS (the latest versions at the issuance dates of VASs) while the second time-period-based score reveals the extent of *de jure* convergence of VAS and current IAS/IFRS (version 2010). For each time-period-based score, three scores, namely, 'full convergence', 'partial convergence' and 'non-convergence', are separately calculated and then are combined into a single *de jure* convergence score.

Descriptive statistics (mean, minimum, maximum and standard deviation) are used to provide an overview of *de jure* convergence between VAS and IAS/IFRS. Two types of *de jure* convergence means are calculated, namely, mean1 and mean2. Mean1 is calculated under the assumption that each standard is weighted by the number of items, whereas mean2 is calculated under the assumption of every standard being weighted equally. Then, paired sample T-tests are employed to analyse insights into the differences between two time-period-based *de jure* convergence scores and between measurement and disclosure *de jure* convergence scores. Furthermore, one-sample T-tests are used to examine whether Vietnam is achieving its target figure (90%) of *de jure* convergence with IAS/IFRS. *De jure* convergence between VAS and IAS/IFRS are analysed at three levels: overall, measurement and disclosure and are presented respectively in Sections 5.1, 5.2 and 5.3.

5.1 Overall *De jure* Convergence between VAS and IAS/IFRS

The overall *de jure* convergence scores of VAS with IAS/IFRS are presented in Table 5.1. The overall *de jure* convergence of 25 VAS with their equivalent old IAS/IFRS (mean1) is 84% (Column V); however, the overall *de jure* convergence with current IAS/IFRS is as expected, far lower, 62% (Column I). The overall level of *de jure* convergence of individual VAS with its equivalent current IAS/IFRS ranges more widely than with its equivalent old IAS/IFRS, from 22% to 100% and from 63% to 100% respectively. The paired sample T-test (see Table 5.2, Panel A) shows the average overall *de jure* convergence (mean2) of VAS with old IAS/IFRS (85%) is significantly higher (p=.002) than the corresponding figure of VAS with current IAS/IFRS (66%). As expected, this decreasing convergence is caused by Vietnam's failure to adopt new IFRS or amendments to IAS/IFRS subsequent to 2005. The VAS has not been changed subsequent to their issuance (2001-2005) while IAS/IFRS has been updated in a more timely manner.

Columns I and V in Table 5.1 shows that the standards 'Events after the Reporting Period' and 'Provisions, Contingent Liabilities and Contingent Assets' have full overall convergence (100%) over time. The Vietnamese and International standards are one and the same. This may be because these two standards are unaffected by a country's context and changes of business environment. Whilst other IASB standards have changed extensively, these two standards remain untouched since their most recent revisions in 1998 for 'Provisions, Contingent Liabilities and Contingent Assets' and in 2003 for 'Events after the Reporting Period'[19]. Six other VAS standards, 'Accounting Policies, Changes in Accounting Estimates and Errors', 'Revenue', 'Borrowing Costs', 'Construction Contract', 'Insurance Contract' and 'Earning per Share' also have high overall levels of *de jure* convergence with both old and current IAS/IFRS, around 90% (Table 5.1, Columns I and V). This convergence trend then tiers down.

[19] A minor exception is that the IASB standard 'Events after the Reporting Period' was retitled from 'Events after the Balance Sheet Date' in September 2007. Moreover, an exposure draft of substantial revisions to the standard 'Provisions, Contingent Liabilities and Contingent Assets' was released in June 2005 by IASB, but it has not been finalised up to 31 December 2010.

Table 5.1 Overall *De jure* Convergence

Standards	VAS-Current IAS/IFRS				VAS-Old IAS/IFRS			
	DJCS (I)	**FCS** (II)	**PCS** (III)	**NCS** (IV)	**DJCS** (V)	**FCS** (VI)	**PCS** (VII)	**NCS** (VIII)
Mean1	**62%**	**59%**	**6%**	**35%**	**84%**	**81%**	**4%**	**15%**
Mean2	**66%**	**64%**	**5%**	**31%**	**85%**	**83%**	**4%**	**13%**
Max	100%	100%	18%	77%	100%	100%	17%	37%
Min	22%	19%	0%	0%	63%	57%	0%	0%
Standard Deviation	24%	25%	6%	23%	12%	13%	5%	11%
Events after the Reporting Period	**100%**	100%	0%	0%	**100%**	100%	0%	0%
Provisions, Contingent Liabilities and Contingent Assets	**100%**	100%	0%	0%	**100%**	100%	0%	0%
Accounting Policies, Changes in Accounting Estimate and Errors	**95%**	95%	0%	5%	**95%**	95%	0%	5%
Revenue	**94%**	94%	0%	6%	**94%**	94%	0%	6%
Borrowing Costs	**92%**	92%	0%	8%	**94%**	92%	8%	0%
Construction Contracts	**89%**	82%	9%	9%	**89%**	82%	9%	9%
Insurance Contracts	**89%**	89%	0%	11%	**88%**	87%	2%	11%
Earnings per Share	**88%**	87%	1%	12%	**88%**	87%	1%	12%
Statement of Cash Flows	**75%**	69%	14%	17%	**84%**	80%	11%	9%
Interim Financial Reporting	**74%**	73%	2%	25%	**85%**	85%	0%	15%
Inventory	**73%**	73%	0%	27%	**80%**	80%	0%	20%
Income Tax	**70%**	67%	5%	28%	**76%**	73%	6%	21%
Intangible Assets	**66%**	61%	9%	30%	**70%**	65%	9%	26%
Interests in Joint Ventures	**62%**	59%	5%	36%	**66%**	64%	5%	31%
Investment Property	**61%**	57%	8%	35%	**64%**	60%	8%	32%
Leases	**60%**	59%	3%	38%	**63%**	62%	1%	37%
Property, Plant and Equipment	**58%**	49%	18%	33%	**67%**	57%	17%	26%
The Effects of Changes in Foreign Exchange Rates	**55%**	45%	18%	37%	**97%**	97%	0%	3%
Presentation of Financial Statements	**50%**	46%	8%	46%	**82%**	77%	7%	16%
Business Combinations	**35%**	30%	11%	59%	**95%**	94%	3%	3%
Related Party Disclosures	**31%**	28%	7%	65%	**100%**	100%	0%	0%
Consolidated and Separate Financial Statements	**28%**	28%	0%	72%	**95%**	95%	0%	5%
Segment Reporting/Operating Segment	**25%**	19%	11%	70%	**91%**	87%	5%	8%
Investments in Associates	**22%**	21%	2%	77%	**75%**	75%	0%	25%
Disclosures in Financial Statements of Banks and Similar Financial Institutions[1]					**96%**	96%	0%	4%

Legend: DJCS: Overall *De jure* Convergence Score; FCS: Overall Full Convergence Score; PCS: Overall Partial Convergence Score; NCS: Overall Non-convergence Score. [1]This standard was withdrawn by IASB in August 2005; therefore, there is no equivalent current IAS/IFRS.

The next four standards, 'Statement of Cash Flows', 'Interim Financial Reporting', 'Inventory' and 'Income Tax', have moderate *de jure* convergence with old IAS/IFRS (between 76% and 85%, Column V) and with current IAS/IFRS (between 70% and 75%, Column I). The five standards relating to non-current assets, namely 'Intangible Assets', 'Interests in Joint Ventures', 'Investment Property', 'Leases', and 'Property, Plant and Equipment' show more modest levels of *de jure* convergence, ranging from 63% to 70% between VAS and old IAS/IFRS (Column V) and from 58% to 66% between VAS and current IAS/IFRS (Column I).

Lower still are the four presentation oriented standards ('Presentation of Financial Statements', 'Related Party Disclosure', 'Consolidated and Separate Financial Statements' and 'Segment Reporting') and the standard 'The Effects of Changes in Foreign Exchange Rates', ranging from 25% to 55% overall levels of *de jure* convergence between VAS and current IAS/IFRS (see Table 5.1, Column I). The 'Business Combination' and 'Investments in Associates' standards have two of the five lowest overall *de jure* convergence scores between VAS and current IAS/IFRS, 35% and 22% respectively (Table 5.1, Column I). Surprisingly, these seven standards have quite high overall levels of *de jure* convergence of VAS and old IAS/IFRS, ranging from 75% to 100% (see Table 5.1, Column V). This implies that the numerous changes between the old and new IAS/IFRS made by the international community (e.g. the IASB) have not been adopted by Vietnam in the relevant VAS standards. This more recent inaction clearly leads to decreasing *de jure* convergence between VAS and IAS/IFRS over time. The findings in this thesis are consistent with a worldwide survey of national accounting rules benchmarked against IAS 2001 which emphasises the lack of convergence for business combination, related party disclosure and segment reporting (Nobes 2001). This highlights the complicated nature of these accounting issues which suggest the need for greater focus in the IASB's convergence program.

'Full convergence', 'partial convergence' and 'non-convergence' scores are also presented in Table 5.1, Columns II-IV and VI-VIII, reflecting the approach to converging with IAS/IFRS in Vietnam. The 'full convergence' score of VAS with old

IAS/IFRS for 25 standards (mean1) is 81% (978 out of 1204 items), but the 'full convergence' score of VAS with current IAS/IFRS is far lower, only 59% (782 out of 1319 items) as shown in Columns VI and II. The contrasting figure (Columns VIII and IV), the 'non-convergence' score for 25 standards increases from 15% (179 out of 1204 items) to 35% (463 out of 1319 items) when the analysis shifts from VAS-Old IAS to VAS-Current IAS. The 'partial convergence' score is low and increases slightly from 4% (47 out of 1204 items) to 6% (74 out of 1319 items) (Columns VII and III). These findings suggest that Vietnam's approach is basically adopting old IAS/IFRS with few modifications. However, VAS has not been updated for subsequent amendments to IASs and new IFRSs (IAS Plus 2009b), resulting in a dramatic decrease in 'full convergence' and concurrent increase in 'non-convergence'.

One-sample T-tests (see Table 5.2, Panel C) show that the average overall *de jure* convergence between VAS and old IAS/IFRS is moderately lower than the target convergence level of 90% (p=.076). Up until 2005, Vietnam was close to their 90% target having achieved at that point in time overall 85% convergence (mean2). However, the story changes in more recent times. The corresponding figure of VAS and current IAS/IFRS dropped sharply to only 66% in 2010 and is significantly lower than the benchmark of 90% (Table 5.2, p=.000). This suggests that Vietnam is now far less likely to achieve their desired level of 90% convergence with IAS/IFRS in the near term; and of course Vietnam cannot reach the 100% preferred benchmark of the IASB if Vietnam still maintains its course of inaction towards recent IAS amendments and new IFRSs.

The paired samples T-tests (see Table 5.2, Panel B) show measurement *de jure* convergence is consistently significantly higher than the disclosure *de jure* convergence when comparing VAS with old IAS/IFRS (p=.016) as well as with current IAS/IFRS (p=.028). This is a major finding in that it implies disclosure *de jure* convergence with IAS/IFRS is more problematic in Vietnam. In order to further explore reasons for the falling *de jure* convergence of VAS with IAS/IFRS over time the following sections

analyse separately the two key sub-components of measurement and disclosure convergence.

Table 5.2 T-Tests for *De jure* Convergence

		Mean	Mean difference	Sig. (2-tailed)
Panel A: Paired Sample T-Test (VAS-Old IAS/IFRS vs VAS-Current IAS/IFRS)				
Overall DJCS	VAS-Old IAS/IFRS VAS-Current IAS/IFRS	.85 .66	.19	.002***
Measurement DJCS	VAS-Old IAS/IFRS VAS-Current IAS/IFRS	.89 .76	.13	.005***
Disclosure DJCS	VAS-Old IAS/IFRS VAS-Current IAS/IFRS	.82 .62	.20	.002***
Panel B: Paired Sample T-Test (Measurement vs Disclosure)				
DJCS of VAS-Old IAS/IFRS	Measurement Disclosure	.89 .82	.07	.016**
DJCS of VAS-Current IAS/IFRS	Measurement Disclosure	.76 .62	.14	.028**
Panel C: One-sample T-Tests (Test value = .90)				
Overall DJCS of VAS-Old IAS/IFRS		.85	-.05	.076*
Overall DJCS of VAS-Current IAS/IFRS		.66	-.24	.000***

Legend: DJCS: *De jure* Convergence Score. *Moderately significant (p<.10); **Significant (p<.05); ***Highly significant (p<.01).

5.2 Measurement *De jure* Convergence between VAS and IAS/IFRS

Measurement *de jure* convergence scores are presented in Table 5.3. Measurement *de jure* convergence between VAS and old IAS was very close to the 90% goal set by the Vietnamese government (mean1=88%). However, this convergence rate falls dramatically to 75% when comparing VAS to the current IAS/IFRS rules. The paired sample T-test shows significant difference (Table 5.2, Panel A, p=.005) between average *de jure* convergence (mean2) of VAS with old IAS/IFRS (89%) and VAS with current IAS/IFRS (76%). This major drop noticeably puts Vietnam's accounting standard convergence program under a threat.

Table 5.3 Measurement *De jure* Convergence

Standards	VAS-Current IAS/IFRS				VAS-Old IAS/IFRS			
	DJCS.M (I)	**FCS.M** (II)	**PCS.M** (III)	**NCS.M** (IV)	**DJCS.M** (V)	**FCS.M** (VI)	**PCS.M** (VII)	**NCS.M** (VIII)
Mean1	**75%**	**71%**	**8%**	**21%**	**88%**	**85%**	**6%**	**9%**
Mean2	**76%**	**70%**	**11%**	**19%**	**89%**	**86%**	**6%**	**8%**
Max	100%	100%	100%	75%	100%	100%	36%	27%
Min	25%	0%	0%	0%	73%	55%	0%	0%
Standard Deviation	24%	29%	21%	23%	9%	13%	9%	8%
Presentation of Financial Statements	**100%**	100%	0%	0%	**100%**	100%	0%	0%
Events after the Reporting Period	**100%**	100%	0%	0%	**100%**	100%	0%	0%
Revenue	**100%**	100%	0%	0%	**100%**	100%	0%	0%
Borrowing Costs	**100%**	100%	0%	0%	**92%**	90%	10%	0%
Interim Financial Reporting	**100%**	100%	0%	0%	**100%**	100%	0%	0%
Provisions, Contingent Liabilities and Contingent Assets	**100%**	100%	0%	0%	**100%**	100%	0%	0%
Accounting Policies, Changes in Accounting Estimate and Errors	**95%**	95%	0%	5%	**95%**	95%	0%	5%
Earnings per Share	**91%**	90%	3%	7%	**91%**	90%	3%	7%
Insurance Contracts	**91%**	91%	0%	9%	**89%**	87%	4%	9%
Construction Contracts	**89%**	79%	14%	7%	**89%**	79%	14%	7%
Income Tax	**84%**	76%	12%	12%	**85%**	79%	13%	8%
Leases	**82%**	78%	8%	14%	**88%**	86%	3%	11%
Intangible Assets	**81%**	73%	13%	14%	**86%**	77%	13%	10%
Inventory	**77%**	77%	0%	23%	**92%**	92%	0%	8%
Interests in Joint Ventures	**76%**	72%	7%	21%	**77%**	74%	7%	19%
Investment Property	**67%**	50%	33%	17%	**73%**	55%	36%	9%
The Effects of Changes in Foreign Exchange Rates	**65%**	48%	30%	22%	**95%**	95%	0%	5%
Property, Plant and Equipment	**60%**	48%	22%	30%	**75%**	61%	22%	17%
Segment Reporting/Operating Segment	**50%**	0%	100%	0%	**100%**	100%	0%	0%
Consolidated and Separate Financial Statements	**40%**	40%	0%	60%	**86%**	86%	0%	14%
Investments in Associates	**38%**	35%	5%	60%	**73%**	73%	0%	27%
Business Combinations	**32%**	25%	12%	63%	**94%**	92%	4%	4%
Statement of Cash Flows	**25%**	25%	0%	75%	**75%**	75%	0%	25%

Legend: DJCS.M: Measurement *De jure* Convergence Score; FCS.M: Measurement Full Convergence Score; PCS.M: Measurement Partial Convergence Score; NCS.M: Measurement Non-convergence Score.

Column V in Table 5.3 reveals that between VAS and old IAS/IFRS, five standards have complete 100% measurement *de jure* convergence; these are 'Presentation of Financial Statements', 'Events after the Reporting Period', 'Revenue', 'Interim Financial Reporting', 'Provisions, Contingent Liabilities and Contingent Assets' and 'Segment Reporting/Operating Segment'. All other standards have at least 73% measurement convergence or higher. Overall, measurement convergence of VAS to old IAS/IFRS was clearly on the right track.

The first 13 standards have quite high VAS-current IAS/IFRS *de jure* convergence scores (over 80%) as shown in Column I, Table 5.3 and are equivalent to VAS-old IAS/IFRS *de jure* convergence scores[20]. However, measurement *de jure* convergence noticeably reduces when analysing the VAS to current IAS/IFRS figures for other standards (Table 5.3, Column I). Four standards have between 50%-67% measurement *de jure* convergence; these are, 'Investment Property', 'The Effects of Changes in Foreign Exchange Rates', 'Property, Plant and Equipment' and 'Segment Reporting/Operating Segment'. Four others ('Consolidated and Separate Financial Statements', 'Investments in Associates', 'Business Combinations' and 'Statement of Cash Flows') are under 50% measurement *de jure* convergence. These eight standards best highlight the highly significant drop in measurement convergence indicative of Vietnam's more recent unwillingness to update VAS. This important finding cannot be emphasised enough. Vietnam's lack of a current clear convergence program is resulting in a clear pattern of falling accounting standard convergence with international expectations and with their own initial convergence goals.

The reason for the current unwillingness to update measurement standards may well be the kind of issues being faced. Many key non-current assets related standards have a modest or low measurement *de jure* convergence score for Vietnam. A major difference

[20] An exception is that the VAS standard 'Borrowing Costs' has 92% *de jure* measurement convergence with its equivalent old IAS/IFRS, but a considerably larger 100% *de jure* convergence with the current IAS/IFRS. This is because the old IAS 23 (effective in January 1995) allows borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset be recognised as an expense (benchmark treatment) or to be capitalised (allowed alternative treatment). The VAS instead chooses to adopt the 'allowed alternative treatment' of the old IAS 23 that is also the unique method allowed by the current IAS 23 (effective in January 2009).

in measurement of non-current assets between VAS and IAS/IFRS is the measurement base. IAS/IFRS permits an entity to choose historical cost base or fair-value base to measure non-current assets, while in Vietnam VAS allows historical cost only. Particularly, in the international arena IAS/IFRS is open to an entity choosing either the 'cost model' or the 'revaluation model' to measure property, plant and equipment, and intangible assets after the initial recognition. Similarly, an entity complying with IAS/IFRS is allowed to choose either the 'cost model' or the 'fair-value model' to measure investment property, investments in associates, joint ventures or subsidiaries in preparing separate financial statements. The fair value base themes are more prevalent in modern IASB standards. For instance, old IASB standards related to non-current assets required an entity to use 'cost model' as a 'benchmark treatment' and use 'valuation model' or 'fair value model' as an 'allowed alternative treatment'. Yet, the 'benchmark treatment' and 'alternative treatment' options are lifted in the current IASB standards related to non-current assets, permitting an entity to equally choose either cost model or revaluation/fair-value model to measure non-current assets, whereas the cost model is still the sole basis in Vietnam required by VAS to measure assets. Vietnam's economy, whilst shifting, is still a developing market economy and continues to be dominated by state ownership that affects considerably the economy's policies (World Bank 2012). This unfavourable feature is an obstacle for Vietnam adopting the fair value base.

Another key difference in measuring non-current assets (except for investment property measured at fair value) is that IAS/IFRS requires an entity to examine the impairment loss of the assets at the end of reporting period and the assets' carrying amounts are reduced by accumulated impairment losses, whereas the test of impairment loss is not currently required by VAS. As explained above, Vietnam's economy does not appear to currently meet preconditions for wide scale use of the fair value base to measure assets and therefore it is difficult to adopt IAS 36 'Impairment of Assets' that requires measuring recoverable amount as "the higher of an asset's or cash generating unit's fair value less costs to sell and its value in use" (IASB 2010c, IAS36 para. 18).

Another important observation is that certain Vietnamese standards, such as 'The Effects of Changes in Foreign Exchange Rates', 'Segment Reporting' and 'Business Combination', have high measurement convergence with its equivalent old IASB standards, over 90% (Table 5.3, Column V), but have modest or even low measurement convergence with its equivalent current IASB standards, from 32% to 65% (Table 5.3, Column I). In relation to the standard 'The Effects of Changes in Foreign Exchange Rates', a major difference is that the current internationally-based IAS 21 requires an entity initially to report foreign currency transactions in the functional currency instead of the reporting currency as the IASB believes that "functional currency, being the currency of the primary business environment in which the entity operates most usefully portrays the economic effects of transactions and events on the entity" (IASB 2010b, B 870). However, the reporting currency is still required by VAS in Vietnam to initially recognise a foreign currency transaction. This difference causes a fundamental divergence in translation of a foreign operation from the functional currency to the presentation currency and recognition of exchange differences related to a foreign operation.

De jure measurement convergence of the standard 'Segment Reporting/Operating Segment' sharply decreases from 100% to 50% because IAS 14 'Segment Reporting' was replaced by IFRS 8 'Operating Segment' with a substantial change in measurement of segment items while the Vietnamese VAS 28 'Segment Reporting' fully adopts the measurement perspective of the old IAS 14 and has not been subsequently updated. The current IFRS 8 requires the amount of each segment item to be measured by 'management approach' instead of using the 'IFRS method'. It is argued that IFRS amounts for segments could be prepared reliably and on a timely basis, but cannot always be prepared on a sufficiently timely basis for interim reporting (IASB 2010b). This implies that IAS/IFRS emphasises the 'relevance' of accounting information rather than the 'liability'.

Similarly, in Vietnam, the VAS standard 'Business Combinations' has 94% measurement *de jure* convergence with its equivalent old IAS/IFRS but has only 32%

measurement *de jure* convergence with its equivalent current IAS/IFRS. This is because the International Accounting Standards Board made major revisions to the provisions relating to the recognition and measurement of the identifiable assets acquired, the liabilities assumed, non-controlling interest in the acquiree, goodwill acquired in the business combination or a gain from a bargain purchase. These IASB revisions were aimed at improving relevance, reliability and comparability of information an entity provides in its financial statements about a business combination and its effects (IASB 2010c). However, these changes are not reflected in VAS rules in Vietnam.

The standard 'Statement of Cash Flows' has the lowest measurement *de jure* convergence between VAS and current IAS/IFRS (25%) although the equivalent figure between VAS and old IAS/IFRS is quite moderate (75%). The measurement issues of this standard relate to translating cash flows arising from transactions in a foreign currency or cash flows of a foreign operation. As mentioned earlier, the current IASB standard 'The Effects of Changes in Foreign Exchange Rates' requires an entity to initially report foreign currency transactions in the functional currency instead of the reporting currency. This revision leads to substantial changes in measurement items required by the current IASB standard 'Statement of Cash Flows' and therefore the measurement *de jure* convergence between the Vietnamese standard and the current IASB standard decreases from a moderate to a very low level.

Measurement 'full convergence', 'partial convergence' and 'non convergence' scores are also presented in Table 5.3 (Columns II-IV and VI-VIII). The measurement 'full convergence' score of Vietnam's standards with old IAS/IFRS standards (mean1) is a high level of 85% (372 out of 437 items), but the equivalent score of VAS with current IAS/IFRS is noticeably lower, 71% (340 out of 482 items) as shown in Columns VI and II respectively. In contrast, the measurement 'non-convergence' score increases from 9% (39 out of 437 items) to 21% (103 out of 482 items) as shown in Columns VIII and IV. This is a major somewhat startling increase. The measurement 'partial convergence' score is low and increases slightly from 6% (26 out of 437 items) to 8% (39 out of 482 items) as shown in Columns VII and III. These findings suggest that as at 2005 VAS

was adopting the IASB measurement rules. However, subsequent post 2005 revisions in IAS/IFRS measurements requirements are not reflected in VAS, resulting in a markedly decreasing measurement convergence between VAS and IAS/IFRS. The convergence level is rapidly heading downhill.

5.3 Disclosure *De jure* Convergence between VAS and IAS/IFRS

A similar but even more dramatic story is witnessed for disclosure *de jure* convergence between Vietnam and the International Accounting Standards Board accounting standards. The disclosure *de jure* convergence scores are presented in Table 5.4. The disclosure *de jure* convergence of 25 VASs with their equivalent old IAS/IFRSs (mean1) is 81%; however, the disclosure *de jure* convergence with current IAS/IFRSs is much lower, only 55% (Columns V andI). Disclosure *de jure* convergence of individual VAS with its equivalent current IAS/IFRS ranges more widely than with its equivalent old IAS/IFRS, from 11% to 100% and from 42% to 100% respectively. The paired sample T-test (see Table 5.2, Panel A) shows the level disclosure *de jure* convergence between VAS and old IAS/IFRS is significantly higher than between VAS and current IAS/IFR (p=.002).

As can be seen from Table 5.4 (Columns I and V), two VAS standards, namely 'Event after Reporting Period' and 'Provisions, Contingent Liabilities and Contingent Assets', consistently achieve 100% disclosure *de jure* convergence with their equivalent IAS/IFRS over time. The standards 'Accounting Policies, Changes in Accounting Estimates and Errors', 'Construction Contract', 'Revenue', 'Insurance Contract', 'Statement of Cash Flows' and 'Earnings per Share' also have high levels of disclosure *de jure* convergence with both old and current versions of IAS/IFRS, from 81% to 95%. Convergence then begins to move quickly towards divergence.

Table 5.4 Disclosure *De jure* Convergence

Standards	VAS-Current IAS/IFRS				VAS-Old IAS/IFRS			
	DJCS.D (I)	**FCS.D** (II)	**PCS.D** (III)	**NCS.D** (IV)	**DJCS.D** (V)	**FCS.D** (VI)	**PCS.D** (VII)	**NCS.D** (VIII)
Mean1	**55%**	**53%**	**4%**	**43%**	**81%**	**79%**	**3%**	**18%**
Mean2	**62%**	**61%**	**3%**	**37%**	**82%**	**81%**	**2%**	**17%**
Max	100%	100%	16%	89%	100%	100%	13%	58%
Min	11%	11%	0%	0%	42%	42%	0%	0%
Standard Deviation	26%	26%	4%	25%	18%	19%	4%	18%
Events after the Reporting Period	**100%**	100%	0%	0%	**100%**	100%	0%	0%
Provisions, Contingent Liabilities and Contingent Assets	**100%**	100%	0%	0%	**100%**	100%	0%	0%
Accounting Policies, Changes in Accounting Estimate and Errors	**95%**	95%	0%	5%	**95%**	95%	0%	5%
Construction Contracts	**89%**	89%	0%	11%	**89%**	89%	0%	11%
Revenue	**87%**	87%	0%	13%	**87%**	87%	0%	13%
Insurance Contracts	**86%**	86%	0%	14%	**86%**	86%	0%	14%
Statement of Cash Flows	**82%**	75%	16%	9%	**85%**	81%	13%	6%
Earnings per Share	**81%**	81%	0%	19%	**81%**	81%	0%	19%
Business Combinations	**75%**	75%	0%	25%	**100%**	100%	0%	0%
Interim Financial Reporting	**68%**	67%	3%	30%	**81%**	81%	0%	19%
Inventory	**67%**	67%	0%	33%	**62%**	62%	0%	38%
Borrowing Costs	**67%**	67%	0%	33%	**100%**	100%	0%	0%
Investment Property	**59%**	59%	0%	41%	**61%**	61%	0%	39%
Income Tax	**59%**	59%	0%	41%	**68%**	68%	0%	32%
Property, Plant and Equipment	**56%**	50%	12%	38%	**59%**	52%	13%	35%
Intangible Assets	**54%**	51%	6%	43%	**57%**	54%	6%	40%
Presentation of Financial Statements	**49%**	45%	8%	47%	**82%**	77%	7%	16%
Leases	**44%**	44%	0%	56%	**44%**	44%	0%	56%
The Effects of Changes in Foreign Exchange Rates	**40%**	40%	0%	60%	**100%**	100%	0%	0%
Related Party Disclosures	**31%**	28%	7%	65%	**100%**	100%	0%	0%
Interests in Joint Ventures	**31%**	31%	0%	69%	**42%**	42%	0%	58%
Segment Reporting/Operating Segment	**24%**	20%	9%	71%	**90%**	87%	5%	8%
Consolidated and Separate Financial Statements	**22%**	22%	0%	78%	**100%**	100%	0%	0%
Investments in Associates	**11%**	11%	0%	89%	**78%**	78%	0%	22%
Disclosures in Financial Statements of Banks and Similar Financial Institutions[1]					**96%**	96%	0%	4%

Legend: DJCS.D: Disclosure *De jure* Convergence Score; FCS.D: Disclosure Full Convergence Score; PCS.D: Disclosure Partial Convergence Score; NCS.D: Disclosure Non-convergence Score. [1]This standard was withdrawn by IASB in August 2005; therefore, there is no equivalent current IAS/IFRS.

The next four standards, namely 'Business Combinations', 'Interim Financial Reporting', 'Inventory' and 'Borrowing Costs' have moderate levels of disclosure *de jure* convergence between VAS and current IAS/IFRS (from 67% to 75%, Table 5.4, Column I) whilst these figures (except for 'Inventory') are notably high when comparing the Vietnamese standards with IAS/IFRS standards (from 81% to 100%, Table 5.4, Column V). The standards 'Investment Property', 'Income Tax', 'Property, Plant and Equipment' and 'Intangible Assets' have more modest levels of disclosure *de jure* convergence from 57% to 68% for VAS-old IAS/IFRS (Table 5.4, Column V) and from 54% to 59% for VAS-current IAS/IFRS (Table 5.4, Column I). Importantly, there are numerous other standards (8 of 24) having disclosure *de jure* convergence between VAS and current IAS/IFRS lower than 50%. All but two of these standards had far higher disclosure *de jure* convergence scores with the old IAS/IFRS rules (from 78% to 100%). Clearly disclosure convergence differences between VAS-old IAS/IFRS and VAS-current IAS/IFRS are on the rise.

To provide a useful example of the disclosure divergence between VAS and current IAS/IFRS, an overview of the main differences in the standard 'Presentation of Financial Statements' are highlighted. The first are differences in the components of financial statements. Under the Vietnamese standard, a complete set of financial statements includes Balance Sheet, Income Statement, Cash Flow Statement and explanatory notes, whereas the internationally-focused IASB replaces the 'Income Statement' with the 'Comprehensive Income Statement', including components of profit or loss and components of other comprehensive income. Additionally, the Statement of Changes in Equity for the period is a separate component under IAS/IFRS while it is only included in explanatory notes under VAS. The second set of differences is in the presentation of information in relation to materiality and aggregation. The current IASB rule requires a material class of similar items to be presented separately and allows an aggregation of immaterial items regardless of their function, whereas the VAS rule in Vietnam requires a material item to be presented separately and only allows an aggregation of immaterial and similar items.

Certain non-current assets related standards, such as 'Investment Property', 'Property, Plant and Equipment' and 'Intangible Assets', have very modest levels of *de jure* disclosure convergence because IAS/IFRS (but not their Vietnamese equivalent standards) requires additional disclosures helping the users of financial statements to better understand measurement of those assets. For instance, IAS/IFRS requires an entity disclose fair value of investment property and information related to determining the fair value even if the entity uses the cost model to measure investment property after its initial recognition. This implies that from the IASB's perspective, fair-value is more relevant than historical cost for economic decision making. The standards 'Leases' and 'Interests in Joint Ventures' are particularly more problematic for Vietnam. The levels of *de jure* convergence between VAS and IAS/IFRS for these two standards are consistently lower than 50% because the old and new IASB standards consistently require more comprehensive disclosures than their VAS counterparts.

Notably, the VAS standards 'The Effects of Changes in Foreign Exchanges Rates', 'Related Party Disclosure', 'Segment Reporting' and 'Consolidated and Separate Financial Statements' have very high disclosure convergence with their equivalent old IASB standards (between 90%-100%, Column V in Table 5.4), but have very low disclosure convergence with their equivalent current IASB standards (between 22%-40%, Column I in Table 5.4). An important diminution of convergence is happening over time. The VAS standard 'Investments in Associates' has the lowest level of disclosure *de jure* convergence with the current IASB standard (11%) despite a far higher level of disclosure convergence with the old IASB standard (78%). This disparity is due to substantial additional disclosures required by the current IASB standards that are not matched by the static Vietnamese standards. The low and decreasing convergence in these important disclosure areas may lead to the lack of transparency of companies' financial reports in Vietnam. An especially problematic issue is the possibility that managers may employ related party and consolidation transactions to hide their morally hazardous activities. Therefore, improving disclosure convergence related to these areas in Vietnam's rule-making is crucially important to protect outsider investors' interests.

Details about the 'full convergence', 'partial convergence' and 'non-convergence' disclosure scores are presented in Table 5.4 (Columns II-IV and VI-VIII). The disclosure 'full convergence' score of VAS and old IAS/IFRS for 25 standards (mean1) is 79% (606 out of 767 items), but the equivalent score of VAS and current IAS/IFRS is much lower, 53% (442 out of 837 items) as shown in Columns VI and II. The disclosure 'non-convergence' score increases considerably from 18% (140 out of 767 items) to 43% (360 out of 837 items) as shown in Columns VIII and IV. The growing level of disclosure 'non-convergence' between VAS and current IAS/IFRS is again due to more recent Vietnamese inaction. The numerous contemporary amendments in IAS/IFRS updates to better meet users' information needs are not currently being matched in Vietnam's standards.

5.4 Summary

The key finding in this chapter is that the Vietnamese VAS shows large-scale divergence with their IAS/IFRS international equivalents. This distinct trend is especially noticeable in regard to disclosure rules. Vietnam initially had a high 84% overall *de jure* convergence level with the comparable international accounting standards up until 2005. However, the prominent point is that subsequent international IASB amendments and new IFRSs have not been updated to VASs, causing a major decrease in overall convergence to 62% which is far lower than Vietnam's stated target figure of 90%. An important point is that measurement *de jure* convergence is consistently significantly higher than disclosure *de jure* convergence, when comparing VAS with old IAS/IFRS as well as with current IAS/IFRS. Yet all aspects of Vietnamese convergence are declining over time due to its unwillingness to match more contemporary IASB changes.

Low and decreasing *de jure* convergence is especially noticeable for the presentation (disclosure) oriented standards, that is, 'Presentation of Financial Statements', 'Related Party Disclosures', 'Consolidated and Separate Financial Statements' and 'Segment Reporting/Operating Segment', and three other standards, namely, 'The Effects of Changes in Foreign Exchanges Rates', 'Business Combinations' and 'Investment in

Associates'. These accounting issues should be prioritised as soon as possible if Vietnam is to achieve its stated convergence target.

The 'full convergence' score of VAS with old IAS/IFRS for 25 standards is 81% while the 'full convergence' score with current IAS/IFRS is far lower, only 59%. The 'partial convergence' score is low and increases slightly from 4% to 6%. These findings reflect Vietnam's approach to adopt old IAS/IFRS with few or no contemporary modifications. Vietnam's VAS has not been updated for subsequent amendments to IASs and new IFRSs, resulting in a dramatic decrease in 'full convergence' and concurrent striking increase in 'non-convergence'. This reflects an unusual and incomplete path to convergence of Vietnamese VAS with the international norms of the IAS/IFRS. If Vietnam maintains this course of inaction, the divergence between VAS and IAS/IFRS will grow even larger, threatening its stated aim of becoming a market-oriented economy.

The modest level of *de jure* convergence between VAS and IAS/IFRS documented in this chapter leads to prediction of a similarly modest level of *de facto* convergence. The reasoning is that the former is an instrument of the latter (Van der Tas 1988). Yet, there are potential differences between the levels of *de jure* and *de facto* convergence in Vietnam. Based on other studies it was always unlikely that companies would achieve 100% compliance with their national accounting standards, whereas companies may voluntarily comply with IAS/IFRS requirements which have not yet been adopted to their national accounting standards (Nobes 2009). In some circumstances, *de jure* differences do not lead to *de facto* differences because the issues are not relevant to a particular country (Nobes 2009). In contrast, companies could achieve 100% *de facto* compliance with an IAS/IFRS measurement item when their national accounting standards adopt one of IAS/IFRS alternative methods. In this case, the *de jure* convergence score for the measurement item is deemed lower than 100%. Therefore, insights into *de facto* compliance by Vietnamese listed companies with VAS and IAS/IFRS is further investigated in Chapter 6.

Chapter 6 *De facto* Compliance Results

6.0 Introduction

This chapter presents the analysis of the findings of *de facto* compliance with VAS and IAS/IFRS (effective by 31 December 2010) using a sample of 200 Vietnamese listed companies' 2010 annual financial reports. The sample characteristics are described in Section 6.1, followed by the descriptive statistics in Section 6.2 which address the second and third research questions concerning the levels of *de facto* company compliance with VAS and IAS/IFRS respectively. *De facto* company compliance analysis is presented at three levels: overall, measurement and disclosure. Additional T-tests are used to statistically analyse the differences between measurement and disclosure compliance and between VAS and IAS compliance for Vietnamese listed companies. A standard-by-standard comparison between IAS/IFRS compliance and VAS compliance is also presented in Section 6.2 to investigate insights into differences in *de facto* company compliance with VAS and IAS/IFRS.

Section 6.3 addresses the fourth research question (What factors help explain the level of *de facto* company compliance with accounting standards in Vietnam?) via statistical analysis such as parametric tests (T-test and ANOVA) and/or non-parametric (Mann-Whitney and Kruskal-Wallis tests) and multiple regressions examining the relationship between the predicted factors (independent and control variables) and the level of *de facto* company compliance (dependent variables). Accordingly, the thesis hypotheses regarding the relationships between the two key predictors (company size and state ownership) and *de facto* company compliance with VAS and IAS/IFRS are tested.

6.1 Sample Characteristics

The sample consists of 100 companies listed on the Ho Chi Minh Stock Exchange and 100 companies listed on the Ha Noi Stock Exchange. Characteristics of the companies are presented in Table 6.1. The company size measured by total assets ranges widely

from Vietnamese dong (VND) 14,671 million to VND 26,146,849 million with an average of VND 1,013,533 million. The average market capitalisation, an alternative measure of company size, is VND 867,157 million. The average state ownership rate of the companies is 29% while the average foreign ownership percentage is much lower (6%)[21]. This ownership structure of the companies indicates that the state is still the key investor in the Vietnamese economy potentially impacting on Vietnam's ability to attract foreign investors. The average ROA (return on assets) and ROE (return on equity) are 11% and 22% respectively, with a moderate average leverage of 51%. The average number of VAS and IAS/IFRS items applicable to the companies is 266 (out of 832 VAS checklist items) and 281 (out of 1085 IAS/IFRS checklist items). The relatively low average number of standard items applicable to Vietnamese listed companies implies that numerous issues formulated in both VAS and IAS/IFRS are not relevant to the Vietnamese listed companies.

Major statistical differences are clearly apparent between company characteristics for those listed on the Ho Chi Minh Stock Exchange and the Ha Noi Stock Exchange when reviewing the data presented in Table 6.1. The average size of the sub-sample companies listed on the Ho Chi Minh Stock Exchange is significantly larger than the average size of the sub-sample companies listed on the Ha Noi Stock Exchange in terms of both total assets (p=.000) and market capitalisation (p=.004, see Table 6.1). The average state ownership of the Ha Noi Stock Exchange sub-sample is 35% which is significantly higher (p=.000) than the equivalent figure of 23% for the Ho Chi Minh Stock Exchange sub-sample. The average foreign ownership of the companies listed on the Ho Chi Minh Stock Exchange is significantly higher than that of the companies listed on the Ha Noi Stock Exchange, 10% and 2% respectively (p=.000). Profitability (ROA and ROE) of the companies listed on the Ho Chi Minh Stock Exchange is higher than the corresponding figures of the companies listed on the Ha Noi Stock Exchange.

[21]There are no companies with 100% state ownership, however, there are 67 companies with state ownership equal or greater than 50%, and 116 companies with state ownership equal to or greater than 20%. It is now clearer in the thesis that the agency theory assumption of separation between ownership and management is deemed valid because of the various ownership interests in contemporary Vietnam. The agency theory is not only appropriate but should also provide important insights.

Table 6.1 Characteristics of Vietnamese Listed Companies

		Total Assets (VND Million)	Market Capitalisation (VND Million)	State Ownership Rate	Foreign Ownership Rate	Return on Assets	Return on Equity	Leverage	Applicable VAS Items	Applicable IAS/IFRS Items
HOSE	**Mean**	**1,650,000**	**1,610,629**	**.23**	**.10**	**.13**	**.23**	**.46**	**277**	**294**
	Median	633,459	416,022	.17	.05	.10	.21	.51	271	290
	Minimum	117,170	72,000	.00	.00	-.08	-.45	.00	205	217
	Maximum	26,146,849	35,946,543	.76	.49	.65	.84	.85	394	427
	Std. Deviation	3,509,723	5,064,761	.23	.13	.11	.15	.21	34	40
HNX	**Mean**	**377,066**	**123,686**	**.35**	**.02**	**.10**	**.22**	**.55**	**254**	**269**
	Median	213,398	76,150	.45	.00	.08	.20	.58	247	261
	Minimum	14,671	7,900	.00	.00	.01	.03	.04	199	209
	Maximum	2,527,346	551,400	.83	.19	.43	.55	.94	347	379
	Std. Deviation	469,166	118,227	.23	.04	.08	.12	.24	29	31
Total	**Mean**	**1,013,533**	**867,157**	**.29**	**.06**	**.11**	**.22**	**.51**	**266**	**281**
	Median	423,435	196,050	.30	.01	.09	.20	.55	262	277
	Minimum	14,671	7,900	.00	.00	-.08	-.45	.00	199	209
	Maximum	26,146,849	35,946,543	.83	.49	.65	.84	.94	394	427
	Std. Deviation	2,577,743	3,650,196	.23	.10	.10	.14	.23	33	38
	T-test[1] HOSE vs HNX (Sig.)	**.000*****	**.004*****	**.000*****	**.000*****	**.019****	**.660**	**.005*****	**.000*****	**.000*****

Legend: HOSE: Ho Chi Minh Stock Exchange; HNX: Ha Noi Stock Exchange; VND: Vietnamese dong.The inter-bank average rate of VND versus USD at 31 December 2010 quoted by the State Bank of Vietnam is one USD being equivalent to VND 18,932.00 (Document No 498/TB-NHNN).

**Significant ($p<.05$); ***Highly significant ($p<.01$). [1]The normality assumption for T-test is not completely satisfied and therefore an additional non-parametric test (Mann-Whitney U test) is conducted. The non-parametric test gives very similar statistical findings (see Appendix D).

The T-tests show the difference is significant for ROA (p=.019) but is not significant for ROE (p=.660). The average leverage of the Ha Noi Stock Exchange sub-sample is significantly higher than the equivalent figure of the the Ho Chi Minh Stock Exchange sub-sample, 55% and 46% respectively (p=.005). A significantly greater average number of accounting standard items are applicable to the companies listed on the Ho Chi Minh Stock Exchange for both VAS (p=.000) and IAS/IFRS (p=.000), implying that the business activities of companies listed on the Ho Chi Minh Stock Exchange are more complicated.

6.2 The Levels of *De facto* Compliance

The descriptive results (see Table 6.2) show that the average companies' compliance with the Vietnamese VAS and the International Accounting Standards Board's IAS/IFRS is 80% and 67% respectively. The VAS *de facto* compliance levels range from 73% to 89% while the IAS/IFRS *de facto* compliance level ranges more widely from 60% to 81%. Paired samples T-test results reveal that measurement *de facto* compliance is significantly higher than disclosure compliance, 87% and 78% respectively for VAS (p=.000) and 82% and 62% respectively for IAS/IFRS (p=.000). These findings are consistent with the results noted in Chapter 5 that measurement *de jure* convergence is significantly higher than disclosure *de jure* convergence of VAS with IAS/IFRS; and highlights disclosure compliance as the most prominent major problem facing accounting regulators in Vietnam.

De facto compliance with VAS is significantly higher than *de facto* compliance with IAS/IFRS for the overall level (p=.000) as well as the measurement (p=.000) and disclosure (p=.000) components (see Table 6.2). The significant difference in *de facto* compliance between VAS and IAS/IFRS for Vietnamese listed companies is because the extent of *de jure* (accounting rules) convergence between VAS and current IAS/IFRS (the 2010 version) is very modest as noted in Chapter 5 while Vietnamese listed companies are obliged to comply with VAS rather than their international IAS/IFRS equivalents. The moderate overall *de facto* company compliance with VAS implies

weak mechanisms for implementing VAS in Vietnam, whereas, the modest overall *de facto* company compliance with IAS/IFRS reflects that Vietnamese listed companies are unlikely to voluntarily adopt IAS/IFRS.

Table 6.2 Descriptive Statistics of *De facto* Compliance and Paired Sample T-Tests

***De facto* Compliance**	**Mean**	**Min**	**Max**	**SD**	**Paired Difference**	
					Mean	**Sig.** (2-tailed)
VCI	.80	.73	.89	.0314		
VCI.M	.87	.80	.97	.0307		
VCI.D	.78	.67	.90	.0389		
ICI	.67	.60	.81	.0341		
ICI.M	.82	.69	.91	.0321		
ICI.D	.62	.52	.75	.0406		
VCI.M vs VCI.D					.09	.000***
ICI.M vs ICI.D					.20	.000***
VCI vs ICI					.13	.000***
VCI.M vs ICI.M					.05	.000***
VCI.D vs ICI.D					.16	.000***

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index; ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. ***Highly significant (p<.01).

The levels of *de facto* company compliance for individual standards are shown in Table 6.3 with the Columns I-III and Columns IV-VI representing VAS *de facto* compliance and IAS/IFRS *de facto* compliance respectively. These *de facto* company compliance scores are shown at three levels: overall, measurement and disclosure. The overall *de facto* compliance ranges widely. Certain standards have over 90% overall *de facto* compliance by Vietnamese listed companies while other standards have below 50% overall *de facto* company compliance. The average overall *de facto* company compliance is 73% for VAS and 66% for IAS/IFRS. The data shows that for Vietnamese listed companies almost all standards have higher measurement compliance than disclosure compliance, except for the standard 'Property, Plant and Equipment'.

Table 6.3 *De facto* Company Compliance Indices for Individual Standards and One-Sample T-Tests

Standards	VCI (Column I)	VCI.M (Column II)	VCI.D (Column III)	ICI (Column IV)	ICI.M (Column V)	ICI.D (Column VI)
Inventory	**0.97**	0.99	0.93	**0.79**	0.99	0.51
Accounting Policies, Changes in Accounting Estimates and Errors	**0.96**	0.99	0.52	**0.96**	0.99	0.52
Statement of Cash Flows	**0.95**	1.00	0.94	**0.95**	1.00	0.94
Revenue	**0.94**	0.99	0.90	**0.98**	0.99	0.97
Consolidated and Separate Financial Statements	**0.94**	0.99	0.89	**0.94**	0.98	0.90
Earnings per Share	**0.94**	0.99	0.93	**0.83**	0.99	0.81
Income Tax	**0.93**	0.99	0.87	**0.92**	0.99	0.84
Borrowing Costs	**0.92**	0.99	0.84	**0.95**	0.99	0.27
Presentation of Financial Statements	**0.91**	1.00	0.90	**0.76**	1.00	0.75
Investments in Associates	**0.90**	0.93	0.89	**0.42**	0.93	0.26
Property, Plant and Equipment	**0.88**	0.78	0.98	**0.80**	0.66	0.98
The Effects of Changes in Foreign Exchange Rates	**0.82**	0.87	0.73	**0.82**	0.87	0.73
Investment Property	**0.78**	0.99	0.66	**0.74**	0.85	0.69
Intangible Assets	**0.76**	0.78	0.74	**0.68**	0.68	0.68
Interests in Joint Ventures	**0.69**	0.81	0.52	**0.64**	0.81	0.49
Construction Contract	**0.58**	1.00	0.36	**0.52**	0.98	0.31
Related Party Disclosure	**0.57**		0.57	**0.29**		0.29
Leases	**0.56**	0.98	0.26	**0.42**	0.95	0.21
Business Combinations	**0.54**	0.85	0.33	**0.44**	0.67	0.33
Provisions, Contingent Liabilities and Contingent Assets	**0.40**	0.52	0.31	**0.40**	0.52	0.31
Events after the Reporting Period	**0.13**	0.85	0.10	**0.13**	0.85	0.10
Segment Reporting/Operating Segment	**0.13**	1.00	0.12	**0.12**	N.A	0.12
Mean	**0.73**	**0.92**	**0.65**	**0.66**	**0.89**	**0.55**
Median	0.85	0.99	0.73	0.75	0.96	0.51
Minimum	0.12	0.52	0.10	0.12	0.52	0.10
Maximum	0.97	1.00	0.98	0.98	1.00	0.98
Standard Deviation	0.26	0.12	0.29	0.27	0.15	0.29
One-Sample T-tests	**VCI**	**VCI.M**	**VCI.D**	**ICI**	**ICI.M**	**ICI.D**
Test value = 1.00 Sig. (2-tailed)	.000***	.007***	.000***			
Test value = .90 Sig. (2-tailed)				.000***	.655	.000***

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index; ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index; N.A: Non-applicable. ***Highly significant (p<.01).

The first ten out of the 22 standards presented in Table 6.3 have virtually complete *de facto* company compliance (90%-97%) with VAS[22], including certain income statement oriented standards ('Revenue', 'Earnings per Share', 'Income Tax' and 'Borrowing Costs'), presentation oriented standards ('Statement of Cash Flows', 'Consolidated and Separate Financial Statements', and 'Presentation of Financial Statements'), and three other standards, namely, 'Inventory', 'Accounting Policies, Changes in Accounting Estimates and Errors' and 'Investments in Associates'. Most of the standards in this group also have higher than 90% overall *de facto* company compliance with IAS/IFRS, except for the standards 'Inventory', 'Earnings per Share' and 'Presentation of Financial Statements' having a moderately high level of overall *de facto* company compliance with IAS/IFRS (79%, 83% and 76% respectively), and the standard 'Investment in Associates' having a low overall *de facto* company compliance with IAS/IFRS (only 42%). The standard 'Accounting Policies, Changes in Accounting Estimates and Errors' is a unique standard in this group, having very high measurement *de facto* company compliance (99%), but relatively low disclosure *de facto* company compliance (52%) for both VAS and IAS/IFRS. It is observed that the companies engaging in changes in accounting estimates are unlikely to disclose related mandatory information. This may be because they employ accounting estimate changes to manipulate their accounting numbers and therefore purposely hide unfavourable information. The similar pattern is found for *de facto* compliance with the IAS/IFRS standards 'Inventory' and 'Borrowing Costs' (but not the Vietnamese equivalent standards).

The next five standards shown in Table 6.3 have moderately high *de facto* company compliance with both VAS and IAS/IFRS (between 69% and 88% for VAS and between 64% and 82% for IAS/IFRS), four of which are non-current asset related standards, that is, 'Property, Plant and Equipment', 'Investment Property', 'Intangible Assets' and 'Interests in Joint Ventures', and the other standard is 'The Effects of Changes in

[22]*De facto* compliance analysis excludes VAS 1 'Framework', VAS 19 'Insurance Contract', VAS 22 'Disclosures in the Financial Statements of Banks and Similar Financial Institutions' and VAS 27 'Interim Financial Reporting'. This is because the 'Framework' is not considered as an IASB standard; insurance companies, banks and financial institutions with their unusual accounting treatments are excluded from this analysis and, therefore, VAS 19 and VAS 22 are not examined; finally, VAS 27 is not relevant to Vietnamese annual financial reports and thus is also excluded.

Foreign Exchange Rates'. An exception found in this group is that the standard 'Property, Plant and Equipment' has lower measurement *de facto* company compliance than disclosure compliance for both VAS and IAS/IFRS. Major measurement non-compliance with the standard 'Property, Plant and Equipment' relates to depreciation estimates. Almost all the Vietnamese listed companies in the sample use the straight-line method to depreciate their property, plant and equipment irrespective of the pattern in which the asset's future economic benefits are expected to be consumed. In addition, the depreciation method and useful life of their property, plant and equipment are generally not reviewed by the companies, and impairment loss evaluation, a unique IAS/IFRS requirement, is not implemented by the Vietnamese listed companies.

Surprisingly, the standard 'Investment Property' has almost complete measurement *de facto* company compliance (99%), but has only moderate disclosure compliance (66%) with VAS. The problem of disclosure non-compliance with this standard relates to Vietnamese companies failing to communicate information about recognising profit or loss derived from their investment property and investment property's fair value. In a similar vein, disclosure non-compliance is even more problematic for the standard 'Interest in Joint Ventures' with only marginal disclosure *de facto* compliance provided by the companies (around 50%) for both VAS and IAS/IFRS.

The Vietnamese companies' varying compliance with both VAS and IAS/IFRS can be considered in different categories. The marginal (between 40% and 58%) VAS *de facto* compliance group includes the standards 'Construction Contract', 'Related Party Disclosure', 'Leases', 'Business Combinations' and 'Provisions, Contingent Liabilities and Contingent Assets'. The companies also have marginal compliance with equivalent IAS/IFRS standards, except for the standard 'Related Party Disclosure' having very low *de facto* company compliance with IAS/IFRS (only 29%). A significant difference between measurement and disclosure compliance is most noticeable for this group. Disclosure non-compliance with the standard 'Construction Contract' is highlighted for disclosing the methods used to determine the stage of completion of contracts in progress and information related to the contracts in progress at the balance sheet date.

Similarly, very limited information about related parties, leases and business combination transactions is communicated by the companies, resulting in low levels of compliance with these standards for both VAS and IAS/IFRS. Regarding the standard 'Provisions, Contingent Liabilities and Contingent Assets', almost all of the Vietnamese listed companies do not make 'best estimates' of provisions and do not disclose information about uncertainties of amount and timing of the obligation related to provisions. Moreover, the items relating to contingent liabilities and contingent assets are not applicable to all the companies[23], leading to a low 40% compliance with this standard for both VAS and IAS/IFRS.

Similarly, a second category of Vietnamese listed companies have very low (13%) compliance with two remaining VAS and IAS/IFRS standards due to disclosure non-compliance. The standard 'Events after the Reporting Period' has quite high (85%) measurement compliance but has very low (10%) disclosure compliance for both VAS and IAS/IFRS. Although this standard's items are largely non-applicable to the majority of companies[24], disclosure non-compliance relates to reporting the date when the financial statements are authorised for issue and who is giving that authorisation. For the standard 'Segment Reporting/Operating Segment', very low compliance with both VAS and IAS/IFRS is due to only a few (41 out of 200) companies preparing segment reports with very limited information communicated.

One-sample T-tests compare the average level of the companies' compliance with individual standards and the Vietnamese government's targeted benchmark of 100% compliance with VAS and 90% compliance with IAS/IFRS[25] (see Table 6.3). The average level of *de facto* company compliance with VAS is significantly lower than 100% for overall level (p=.000) as well as measurement (p=.007) and disclosure

[23]The items relating to contingent liabilities and contingent assets are considered non-applicable to all companies in the sample as no information is communicated to determine whether the companies have contingent liabilities and contingent assets at the end of the year 2010.
[24]Some 167 of 200 companies do not disclose events occurring after the reporting period and there is no information communicated to examine whether those companies have important events occurring after the reporting period. Therefore, the standard's items are considered non-applicable to these 167 companies.
[25]Vietnamese listed companies are obliged to comply with VAS and therefore the target goal for VAS compliance is 100%. Vietnam's desired level of convergence with IAS/IFRS is stated to be 90% (Adams and Do 2003); thus the hoped for benchmark for IAS/IFRS compliance is considered to be at 90%.

compliance levels (p=.000). This finding implies weak mechanisms (e.g. enforcement, auditing and corporate governance) for implementing accounting standards in Vietnam. The average overall compliance of Vietnamese companies with IAS/IFRS is significantly lower than 90% (p=.000). Regarding separate measurement and disclosure compliance by companies in Vietnam, the average measurement *de facto* compliance with IAS/IFRS (89%) mostly reaches the benchmark while the average disclosure *de facto* compliance with IAS/IFRS is significantly lower than the benchmark (p=.000). This implies that disclosure *de jure* convergence of VAS with IAS/IFRS needs to be more focused if Vietnam is to achieve their target level of *de facto* compliance with IAS/IFRS as *de jure* convergence is a primary factor leading to *de facto* compliance (Van der Tas 1988).

As shown in Table 6.2, VAS *de facto* compliance is significantly higher than IAS/IFRS *de facto* compliance for the Vietnamese listed companies. The differences in individual standard compliance between VAS and IAS/IFRS presented in Table 6.4 (Columns I-III) provide insights into *de facto* convergence/divergence between VAS and IAS/IFRS. The difference in overall *de facto* company compliance between VAS and IAS/IFRS ranges widely from negative 4% to positive 48% with an average of positive 8%, reflecting that *de facto* company compliance with VAS is not always higher than IAS/IFRS for individual standards as expected. The Vietnamese listed companies have VAS overall *de facto* compliance higher than IAS/IFRS overall *de facto* compliance for the majority of standards (14 out of 22 standards), whereas they have IAS/IFRS overall *de facto* compliance higher than VAS overall *de facto* compliance for two standards, and have no difference for the other six standards.

The Pearson correlation tests (Table 6.4) show a significant correlation between the VAS and IAS/IFRS *de facto* company compliance difference and the *de jure* convergence of VAS with IAS/IFRS for the overall level (coefficient=-.527, p=.012). However, the correlation is weaker when split into measurement (coefficient=-.392, p=.087) and disclosure (coefficient=-.317, p=.150) components.

Table 6.4 Differences between VAS and IAS/IFRS*De facto* Compliance Indices for Individual Standards

Standards	Δ (VCI-ICI) Column I	Δ (VCI.M-ICI.M) Column II	Δ (VCI.D-ICI.D) Column III	DJCS Column IV	DJCS.M Column V	DJCS.D Column VI
Investments in Associates	0.48	0.00	0.63	0.22	0.38	0.11
Related Party Disclosure	0.28		0.28	0.31		0.31
Inventory	0.18	0.00	0.42	0.73	0.77	0.67
Presentation of Financial Statements	0.15	0.00	0.15	0.50	1.00	0.49
Leases	0.14	0.03	0.05	0.60	0.82	0.44
Earnings per Share	0.11	0.00	0.12	0.88	0.91	0.81
Business Combinations	0.10	0.18	0.00	0.35	0.32	0.75
Property, Plant and Equipment	0.08	0.12	0.00	0.58	0.60	0.56
Intangible Assets	0.08	0.10	0.06	0.66	0.81	0.54
Construction Contract	0.06	0.02	0.05	0.89	0.89	0.89
Interests in Joint Ventures	0.05	0.00	0.03	0.62	0.76	0.31
Investment Property	0.04	0.14	-0.03	0.61	0.67	0.59
Income Tax	0.01	0.00	0.03	0.70	0.84	0.59
Segment Reporting/Operating Segment	0.01	N.A	0.00	0.25	0.50	0.24
The Effects of Changes in Foreign Exchange Rates	0.00	0.00	0.00	0.55	0.65	0.40
Statement of Cash Flows	0.00	0.00	0.00	0.75	0.25	0.82
Events after the Reporting Period	0.00	0.00	0.00	1.00	1.00	1.00
Provisions, Contingent Liabilities and Contingent Assets	0.00	0.00	0.00	1.00	1.00	1.00
Consolidated and Separate Financial Statements	0.00	0.01	-0.01	0.28	0.40	0.22
Accounting Policies, Changes in Accounting Estimates and Errors	0.00	0.00	0.00	0.95	0.95	0.95
Borrowing Costs	**-0.03**	0.00	**0.57**	0.92	1.00	0.67
Revenue	**-0.04**	0.00	**-0.07**	0.94	1.00	0.87
Mean	**0.08**	**0.03**	**0.10**			
Median	0.05	0.00	0.02			
Minimum	-0.04	0.00	-0.07			
Maximum	0.48	0.18	0.63			
Standard Deviation	0.12	0.06	0.19			
Pearson Correlations	**Δ (VCI-ICI)**	**Δ (VCI.M-ICI.M)**	**Δ (VCI.D-ICI.D)**			
DJCS	-.527 (p=.012**)					
DJCS.M		-.392 (p=.087*)				
DJCS.D			-.317 (p=.150)			

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index; ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index; DJCS: Overall *De jure* Convergence Score; DJCS.M: Measurement *De jure* Convergence Score; DJCS.D: Disclosure *De jure* Convergence Score; Δ: Difference; N.A: Non-applicable. *Moderately significant (p<.10);**Significant (p<.05).

The negative direction of the correlation indicates that the higher the *de jure* convergence (see Table 6.4, Columns IV-VI), the lower the *de facto* company compliance difference between VAS and IAS/IFRS (see Table 6.4, Columns I-III). This negative relationship is clearly evident for the standard 'Investments in Associates' and 'Related Party Disclosure' which have lower *de jure* convergence and larger *de facto* compliance difference between VAS and IAS/IFRS. In contrast, the standards 'Events after the Reporting Period', 'Provisions, Contingent Liabilities and Contingent Assets' and 'Accounting Policies, Changes in Accounting Estimates and Errors' have virtually complete *de jure* convergence and zero *de facto* company compliance difference between VAS and IAS/IFRS as expected.

There are, however, exceptions for the standards 'Segment Reporting/Operating Segment' and 'Consolidated and Separate Financial Statements' which have very low *de jure* convergence and very low *de facto* company compliance difference between VAS and IAS/IFRS (see Table 6.4). This is because many additional IAS/IFRS (but not the equivalent VAS) requirements regulated in these two standards are largely not relevant (non-applicable) to the companies and therefore the *de facto* compliance differences between VAS and IAS/IFRS for these standards are effectively zero. A similar explanation is applicable for the standard 'The Effects of Changes in Foreign Exchange Rates' having only marginal *de jure* convergence (55%) but no *de facto* company compliance difference between VAS and IAS/IFRS.

The standards 'Borrowing Costs' and 'Revenue' have negative differences, reflecting that company *de facto* compliance with IAS/IFRS is better than the company compliance with VAS. An unusual finding for the standard 'Borrowing Costs' is that there is a zero difference in measurement *de facto* compliance and a large positive difference in disclosure *de facto* compliance (57%) that in aggregate shows a small negative difference in the overall *de facto* compliance (-3%) between VAS and IAS/IFRS[26]. A unique difference between VAS and IAS/IFRS rule for this standard is

[26] The standard 'Borrowing Costs' includes two disclosure items related to capitalisation of borrowing costs required by both VAS and IAS/IFRS, and an additional item required by VAS only (see Appendix C). The companies are unlikely to disclose information about borrowing cost capitalisation. These two

that VAS (but not the equivalent IAS/IFRS) requires companies to disclose accounting policies applicable to borrowing costs. This means that the Vietnamese companies' compliance status (i.e. compliance, non-compliance or non-applicable) for the unique VAS requirement leads to the *de facto* compliance difference between VAS and IAS/IFRS for the standard 'Borrowing Costs'[27]. Regarding the 'Revenue' standard, only 119 of 200 (about 60%) companies disclose 'other income presented in detail' required by VAS rule (but not the equivalent IAS/IFRS). This causes a lower level of *de facto* company compliance with the VAS standards compared to the level of compliance with the equivalent IAS/IFRS standards.

6.3 Factors Explaining *De facto* Company Compliance

This section examines the effect of individual predictors as well as a combination of predictors on *de facto* compliance with VAS and IAS/IFRS by the Vietnamese listed companies. The former perspective is analysed in Section 6.3.1 below.

6.3.1 Relationships between Individual Predictors and *De facto* Compliance

Pearson correlations and T-tests are employed to explore the effect of individual predictors on *de facto* company compliance with VAS and IAS/IFRS (as the dependent

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items are coded as non-applicable for 155 companies because the two items are not deemed relevant to those companies or no information about borrowing cost capitalisation is communicated in their 2010 annual financial reports. However, 130 out of those 155 companies still have 100% disclosure compliance with VAS for this standard because they comply with the unique VAS disclosure requirement, leading to a quite high average score of disclosure compliance (84%) for the VAS standard, whereas the level of disclosure compliance with the equivalent IAS/IFRS is determined by the other 45 companies that disclose very limited information about borrowing cost capitalisation, resulting in a very low 27% disclosure compliance for the IAS/IFRS standard. This fact helps explain the large 57% difference in disclosure compliance between VAS and IAS/IFRS for the standard 'Borrowing Costs'.

[27]There are 138 (out of 200) companies having 100% compliance with the standard 'Borrowing Costs' for both VAS and IAS/IFRS and another 14 companies have no involvement with this standard as they did not incur borrowing costs during the reporting year of 2010. Those 152 companies thus do not make a contribution to the compliance difference between VAS and IAS/IFRS. Of the 48 remaining companies, there are 13 companies that do not disclose the unique VAS item, resulting in a negative difference (-5.25) in compliance between VAS and IAS/IFRS for the standard 'Borrowing Costs', whereas the rest (35 companies) comply with the unique VAS requirement, creating a positive difference (0.25) in the standard compliance. The larger negativedifference (-5.25) offsets the smaller positive difference (0.25) and then is divided by 200 (companies), producing an average difference of negative 0.025 (or -3%).

variables). The former statistical procedure examines the correlations between individual predictors and dependent variables; and the latter statistical method furthers the investigation of the relationships between individual dichotomous predictors and dependent variables.

6.3.1.1 Pearson Correlation Test

Pearson correlations tests are used to investigate the strength and direction of correlations between the predictors (company size, state ownership, foreign ownership, ROA, leverage, stock exchange location, audit firm type, industry sectorand business complexity) and the dependent variables (*de facto* compliance) as shown in Table 6.5.

Table 6.5 Pearson Correlation Coefficients: Predictors and Dependent Variables

Predictors – Dependent Variables	VCI	VCI.M	VCI.D	ICI	ICI.M	ICI.D
Company Size (Assets)	.067	.109	-.007	.175**	.170**	.047
State Ownership Rate	-.134	-.193***	-.087	-.125	-.128	-.084
Foreign Ownership Rate	.177**	.091	.107	.244***	.028	.113
Return on Assets (ROA)	.056	-.089	.056	.057	-.175**	.038
Leverage	-.178**	.062	-.194***	-.120	.167**	-.135
Stock Exchange Location	-.206***	.039	-.195***	-.266***	.022	-.218***
Audit Firm Type	-.079	.176**	-.155**	-.082	.124	-.162**
Industry Sector	-.016	-.045	-.002	.038	-.007	.046
Applicable VAS Items	.108					
Applicable VAS Measurement Items		.041				
Applicable VAS Disclosure Items			.009			
Applicable IAS/IFRS Items				.219**		
Applicable IAS/IFRS Measurement Items					.072	
Applicable IAS/IFRS Disclosure Items						.049

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index; ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. **Correlation is significant ($p<.05$); ***Correlation is highly significant ($p<.01$).

The correlation coefficients between the predictors and the independent variables are consistently low, ranging from 0.002 to 0.266 (see Table 6.5). Company size (assets) have significant positive correlations with IAS/IFRS *de facto* compliance for overall and

measurement levels (p<.05). State ownership is negatively associated with every dependent variable, but only the correlation with the VAS measurement *de facto* compliance is significant (p<.01). The correlations between foreign ownership and dependent variables are consistently positive, but are only significant for overall *de facto* compliance with VAS (p<.05) and with IAS/IFRS (p<.01). ROA is positively associated with overall and disclosure *de facto* compliance but is negatively associated with measurement *de facto* compliance for both VAS and IAS/IFRS. Yet, the correlation is only significant for IAS/IFRS measurement *de facto* compliance (p<.05). Leverage is negatively associated with overall and disclosure *de facto* compliance, but is positively associated with measurement *de facto* compliance for both VAS and IAS/IFRS. The correlations are significant for overall (p<.05) and disclosure (p<.01) compliance with VAS and for the measurement compliance with IAS/IFRS (p<.05). The correlations between stock exchange location and *de facto* company compliance with VAS and IAS/IFRS is significantly negative for overall (p<.01) and disclosure (p<.01) levels. The negative correlation reflects the companies listed on the Ho Chi Minh Stock Exchange have significantly higher overall and disclosure *de facto* compliance than the companies listed on the Ha Noi Stock Exchange for both VAS and IAS/IFRS. Audit firm type is significantly associated with both measurement (p<.05) and disclosure (p<.05) *de facto* compliance for VAS and with disclosure *de facto* compliance for IAS/IFRS (p<.05). However, the correlation directions are different between measurement and disclosure compliance. Non-big-four related companies have higher disclosure *de facto* compliance but have lower measurement *de facto* compliance than big-four related companies. The correlations between industry and dependent variables are very weak with the coefficients from .002 to .046. Finally, business complexity measured as applicable standard items is consistently positively associated with every dependent variable, yet the correlation is only significant for the IAS/IFRS overall *de facto* compliance (p<.01).

In summary, the correlations between individual predictors and *de facto* compliance with VAS and IAS/IFRS are consistently low. Regarding the hypotheses posited in Chapter 3, the Pearson correlation results support the hypotheses of positive associations between company size and IAS/IFRS *de facto* company compliance for overall and

measurement levels, and a negative association between state ownership and VAS *de facto* company compliance for measurement component.

6.3.1.2 T-Tests

T-tests are employed to further examine the relationships between the dichotomous predictors (state ownership, foreign ownership, stock exchange location, audit firm type, industry sector, industry profile and business complexity) and *de facto* compliance with VAS and IAS/IFRS by Vietnamese listed companies.

High state ownership concentration is highlighted as a typical feature of Vietnamese listed companies and therefore this thesis specifically investigates how state ownership concentration affects *de facto* company compliance with VAS and IAS/IFRS in Vietnam. In this section, a variety of state ownership levels (i.e. 0%, 5%, 10%, 15%, 20%, 25%, 30% and 50%) are used as possible benchmark figures to explore the state ownership level(s) significantly affecting *de facto* company compliance with VAS and IAS/IFRS in Vietnam.

Table 6.6 presents independent sample T-test results reflecting the relationship between *de facto* company compliance and state ownership at different levels. The results show significant negative relationships between VAS measurement *de facto* compliance and state ownership at all benchmark levels between 0% and 30%, and between IAS/IFRS measurement *de facto* compliance and state ownership at the benchmark levels of 10%, 20%, 25% and 30%. Yet, state ownership does not significantly affect *de facto* disclosure compliance for both VAS and IAS/IFRS at any of these benchmark levels. The aggregation of measurement and disclosure components leads to a moderately significant negative relationship between overall *de facto* compliance and state ownership at the benchmark levels of 0%, 10% and 25% for VAS (but not for IAS/IFRS). Thus, the relationship between state ownership and *de facto* compliance is highlighted for measurement at the benchmark state ownership levels of 10%, 20%, 25% and 30%.

Table 6.6T-Tests: Comparing *De facto* Compliance between Different State Ownership Groups

Groups	N	VCI		VCI.M		VCI.D		ICI		ICI.M		ICI.D	
		Mean	Sig.	Mean	Sig.	Mean	Sig.	Mean	Sig.	Mean	Sig.	Mean	Sig.
State ownership = 0%	56	.809	.077*	.874	.035**	.788	.175	.671	.340	.820	.155	.622	.443
State ownership > 0%	144	.800		.864		.780		.666		.813		.617	
State ownership < 5%	58	.808	.136	.875	.021**	.787	.306	.670	.417	.821	.074*	.621	.606
State ownership ≥ 5%	142	.800		.864		.781		.666		.812		.618	
State ownership < 10%	63	.808	.097*	.876	.007***	.787	.274	.670	.347	.822	.041**	.621	.569
State ownership ≥ 10%	137	.800		.864		.780		.665		.812		.617	
State ownership < 15%	74	.806	.207	.874	.013**	.785	.451	.669	.539	.819	.183	.620	.661
State ownership ≥ 15%	126	.800		.863		.781		.666		.813		.618	
State ownership < 20%	84	.806	.160	.876	.000***	.784	.537	.670	.345	.822	.009***	.620	.669
State ownership ≥ 20%	116	.800		.861		.781		.665		.810		.617	
State ownership < 25%	94	.807	.061*	.875	.000***	.786	.267	.671	.110	.821	.009***	.622	.259
State ownership ≥ 25%	106	.799		.860		.779		.663		.809		.615	
State ownership < 30%	99	.806	.113	.873	.005***	.785	.327	.671	.136	.820	.034**	.622	.256
State ownership ≥ 30%	101	.799		.861		.780		.663		.810		.615	
State ownership < 50%	133	.805	.117	.869	.253	.785	.234	.670	.125	.816	.655	.621	.304
State ownership ≥ 50%	67	.798		.864		.778		.662		.814		.614	

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index; ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index.
*Moderately significant (p<.10);**Significant (p<.05); ***Highly significant (p<.01).

In Section 6.3.2, the state ownership level of 20% is selected as the benchmark to examine the effect of state ownership on *de facto* company compliance in the combination with other factors because 20% ownership level is deemed sufficient for 'significant influence' to be exerted on companies as explained in Chapter 4.

Independent sample T-tests examining the relationships between dependent variables (*de facto*compliance) and the dichotomous control variables (foreign ownership, stock exchange location, audit firm type, industry sector, and industry profile and business complexity) are shown in Table 6.7. The T-test results reveal that companies with foreign ownership equal to or greater than 5% have significantly higher overall *de facto* compliance than companies with foreign ownership less than 5% for VAS (p=.015) and IAS/IFRS (p=.002). However, when analysing separately measurement and disclosure components, only the difference in disclosure *de facto* compliance is moderately significant (p=.087 for VAS and p=.063 for IAS/IFRS).

Companies listed on the Ho Chi Minh Stock Exchange have significantly higher overall *de facto* compliance than companies listed on the Ha Noi Stock Exchange for both VAS (p=.003) and IAS/IFRS (p=.000). Splitting into measurement and disclosure elements, the difference is significant for disclosure *de facto* compliance with both VAS (p=.006) and IAS/IFRS (p=.002), but is not significant for measurement *de facto* compliance.

Audit firm type does not significantly affect overall *de facto* company compliance for both VAS and IAS/IFRS, yet has significant relationships with measurement and disclosure *de facto* compliance. Non-big-four related companies have significantly lower measurement compliance (p=.013), but have significantly higher disclosure compliance (p=.029) than big-four related companies for VAS. A similar relationship direction between the audit firm type and measurement (p=.081) and disclosure (p=.022) *de facto* compliance are found for IAS/IFRS. Unusually, the negative relationship between audit firm type and disclosure *de facto* compliance suggests that the big-four audit firms do not assist in improving transparency of financial reporting in Vietnam.

Table 6.7 Independent Samples T-Tests: Dependent Variables and Dichotomous Independent/Control Variables

	Categories	VCI		VCI.M		VCI.D		ICI		ICI.M		ICI.D	
		Mean	Sig.	Mean	Sig.	Mean	Sig.	Mean	Sig.	Mean	Sig.	Mean	Sig.
Foreign Ownership	< 5%	.799	.015**	.865	.171	.779	.087*	.662	.002***	.814	.387	.615	.063*
	≥ 5%	.811		.872		.790		.678		.818		.627	
Stock Exchange Location	HOSE	.809	.003***	.866	.584	.790	.006***	.676	.000***	.814	.755	.627	.002***
	HNX	.796		.868		.775		.658		.816		.610	
Audit Firm Type	Non-big-four	.804	.264	.865	.013**	.785	.029**	.668	.247	.813	.081*	.621	.022**
	Big-four	.796		.881		.767		.660		.825		.602	
Industry Sector	Non-manufacturing	.803	.827	.869	.528	.782	.975	.665	.589	.815	.927	.616	.522
	Manufacturing	.802		.866		.782		.668		.814		.620	
Industry Profile	Low Profile	.804	.128	.869	.067*	.784	.245	.668	.206	.816	.169	.620	.300
	High Profile	.794		.857		.774		.659		.807		.611	
Business Complexity	No Subsidiary	.801	.173	.863	.012**	.782	.872	.663	.012**	.809	.000***	.618	.752
	Subsidiaries	.807		.875		.783		.676		.827		.620	

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index; ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index; HOSE: Ho Chi Minh Stock Exchange; HNX: Ha Noi Stock Exchange. *Moderately significant (p<.10);**Significant (p<.05); ***Highly significant (p<.01).

Conversely, empirical evidence from prior research shows that international big audit firms have a positive influence on the degree of disclosure reported by companies (Glaum and Street 2003; Abdelsalam and Weetman 2007; Hodgdon et al. 2009).

Vietnamese listed companies with subsidiaries have significantly higher measurement *de facto* compliance than Vietnamese listed companies without subsidiaries for VAS (p=.012) and IAS/IFRS (p=.000), whereas the difference in disclosure *de facto* compliance between the two groups is not significant for both VAS and IAS/IFRS. This results in a significant difference in the overall level between the two groups for IAS/IFRS (p=.012), but the difference is not significant for VAS.

The T-test findings show virtually no relationship between *de facto* company compliance with VAS and IAS/IFRS and the industry sector as well as the industry profile, except for a moderately significant difference in VAS measurement *de facto* compliance between low profile and high profile industries (p=.067).

The above T-tests are based on the assumption that dependent variables have normal distributions. However, the normality test is not always satisfied and therefore additional non-parametric tests are conducted. The non-parametric tests give very similar statistical findings (see Appendix E).

In summary, Pearson correlations and T-tests' results show that overall *de facto* compliance by Vietnamese listed companies is mostly affected by stock exchange location, foreign ownership and leverage for both VAS and IAS/IFRS. In addition, overall IAS/IFRS *de facto* company compliance is also affected by company size and business complexity. However, factors affecting measurement and disclosure *de facto* company compliance are different. State ownership, audit firm type, leverage and business complexity are highlighted as determinants of measurement *de facto* company compliance for both VAS and IAS/IFRS. Moreover, measurement *de facto* company compliance with IAS/IFRS is also linked to company size (total assets), leverage and ROA, whereas stock exchange location, audit firm type and foreign ownership are

important factors affecting disclosure *de facto* company compliance for both VAS and IAS/IFRS. In addition, VAS disclosure compliance is also affected by leverage. Nevertheless, each factor does not affect the extent of *de facto* company compliance individually but in interaction with the other factors. In the next section, a series of multiple regressions are employed to examine the effect of a combination of the predictors on *de facto* company compliance with VAS and IAS/IFRS in Vietnam.

6.3.2 Relationship between *De facto* Compliance and a Combination of Predictors

Multiple regressions are used to explore the relationships between dependent variables (*de facto* compliance with VAS and IAS/IFRS) and a combination of two independent variables (company size and state ownership) and seven control variables (foreign ownership, profitability, leverage, stock exchange location, audit firm type, industry and business complexity). Accordingly, the two hypotheses positing the relationships between the dependent variables and the two independent variables are addressed. As independent and control variables could be measured in a variety of ways, this section consists of main and sensitivity analyses where independent and control variables are measured in different ways commonly used in the literature. Additional multiple regressions are conducted separately for the two stock exchange sub-samples in Vietnam.

Examining fundamental assumptions and outliers of multiple regression models is crucially important to ensure the validity and reliability of the models. Therefore, tests for multiple regression assumptions and outliers are needed before using the regression results. Assessments of the validity and reliability of the multiple regression models built in this chapter are presented in Section 6.3.2.1 below.

6.3.2.1 Assessing the Validity and Reliability of the Multiple Regression Models

Underlying conditions for multiple regressions include linearity, independence of independent and control variables, normality and independence of errors. Each of these

conditions is addressed below for all multiple regression models.

The first condition, linearity, is assessed through an analysis of residual plots (Hair et al. 2010). The residual plots of all regression models in this chapter do not show any non-linear pattern to the residuals, thus ensuring that the overall equations are linear. As the results of the stepwise regressions are appropriately discussed in the main text of this thesis, the residual plots of the stepwise regressions for main analysis are presented in Appendix F.

The second condition, independence of independent and control variables, requires independent/control variables that are not highly correlated. A correlation between any two variables is considered to be high if that correlation coefficient exceeds 0.7 (Lind, Marchal, and Wathen 2004). Pearson correlation coefficients between the independent/control variables in this chapter shown in Table 6.8 are lower than 0.7 (the maximum value is 0.643) and therefore there is no multicollinearity problem. Other indications of multicollinearity are the tolerance coefficient and variance inflation factor (VIF). Multicollinearity may be a concern where the tolerance coefficient is below 0.1 and/or VIF is higher than 10 (Hair et al. 2006). All multiple regression models in this chapter have tolerance coefficients above 0.1 and VIF below 10 (see Tables 6.9, 6.10, 6.13, 6.14, 6.15 and 6.16 and Appendices H, J, L and M). Thus, the condition of independence of independent/control variables used in this chapter is satisfied based on correlations, tolerance and VIF analysis.

The third statistical assumption, independence of errors, can be assessed by the Durbin-Watson statistic. The residuals are considered not to be correlated with each other where the Durbin-Watson value is close to 2 (Norusis 2008). All multiple regression models in this chapter have the Durbin-Watson value quite close to 2 (ranging from 1.887 to 2.222, see Tables 6.9, 6.10, 6.13, 6.14, 6.15 and 6.16 and Appendices H, J, L and M); therefore, the assumption of independence of errors is satisfied.

Table 6.8 Pearson Correlations between Predictors

Predictors	Company Size (Assets)	State Ownership Rate	Foreign Ownership Rate	Return on Assets	Leverage	Stock Exchange Location	Audit Firm Type	Industry Sector
Company Size (Assets)		-.028	.400***	-.090	.292***	-.480***	.483***	.124
State Ownership Rate	-.028		-.053	-.022	.060	.247***	.008	.066
Foreign Ownership Rate	.400***	-.053		.264***	-.254***	-.390***	.195***	.130
Return on Assets (ROA)	-.090	-.022	.264***		-.582***	-.165**	.048	-.098
Leverage	.292***	.060	-.254***	-.582***		.197***	.112	.135
Stock Exchange Location	-.480***	.247***	-.390***	-.165**	.197***		-.132	-.022
Audit Firm Type	.483***	.008	.195***	.048	.112	-.132		.018
Industry Sector	.124	.066	.130	-.098	.135	-.022	.018	
Applicable VAS Items	.643***	-.052	.304***	-.019	.168**	-.335***	.394***	-.015
Applicable VAS Measurement Items	.625***	-.094	.336***	.032	.101	-.362***	.402***	-.052
Applicable VAS Disclosure Items	.629***	-.020	.268***	-.055	.209***	-.302***	.371***	.012
Applicable IAS/IFRS Items	.641***	-.061	.317***	-.009	.155**	-.327***	.416***	-.027
Applicable IAS/IFRS Measurement Items	.632***	-.112	.347***	.039	.088	-.370***	.406***	-.049
Applicable IAS/IFRS Disclosure Items	.617***	-.025	.283***	-.040	.190***	-.285***	.403***	-.012

**Correlation is significant (p<.05); ***Correlation is highly significant (p<.01).

The final condition requires normal distribution of errors. This condition is assessed through a visual examination of a histogram of residual or normal probability plots of residuals, (Hair et al. 2006) and the latter is employed in this chapter. None of the normal probability plots in this chapter exhibit substantial departure, and the residuals thus are considered to be approximately normally distributed. The normal probability plots of the stepwise regressions for main analysis are presented in Appendix G.

It is also important to examine outliers as they can influence the reliability of multiple regression results. Mahalanobis distance and Cook's distance are two common residual statistics for identifying the outliers (Norusis 2008). An outlier may cause concern where the Mahalanobis distance is above 25 (Field 2005) and Cook's distance is above 1 (Cook and Weisberg 1982; Norusis 2008). Hair et al. (2006) argue that an outlier should only be eliminated from the model if it is not truly representative of the population from which the sample is selected. The final stepwise regression models presented in Tables 6.9, 6.10, 6.13, 6.14, 6.15 and 6.16 and the equivalent full regression models presented in Appendices H, J, L and M have a few observations with the Mahalanobis distance of above 25, but none of which has the Cook's distance of above 1. These observations thus should be considered to be representative of the population and are not eliminated from the models.

In summary, the above discussion indicates that the multiple regression models derived in this chapter are considered valid and reliable as the fundamental assumptions for the use of multiple regressions are deemed satisfied and outliers are not considered a concern for the multiple regression models.

6.3.2.2 Main Analysis

In the main analysis, the natural logarithm of a company' total assets is used as the measure of the company size. State ownership and foreign ownership are measured by the corresponding ownership rates. ROA and the ratio of total liabilities to total assets are employed as measures of profitability and leverage respectively. Stock exchange

location is categorised as Ha Noi or Ho Chi Minh stock exchanges; audit firms are classified into big-four and non-big-four; and industry is categorised as manufacturing or non-manufacturing. Business complexity is measured by the number of standard items applicable to a company. A variety of measures of the applicable standard items are used according to the corresponding dependent variables addressed in equivalent regression models (total VAS items, VAS measurement items, VAS disclosures items, total IAS/IFRS items, IAS/IFRS measurement items and IAS/IFRS disclosure items).

The stepwise regression procedures show significant predictors for VAS and IAS/IFRS *de facto* compliance respectively in Tables 6.9 and 6.10 (see full regression models in Appendix H). Stock exchange location is a significant predictor of overall *de facto* company compliance for both VAS (p=.013, Table 6.9) and IAS/IFRS (p=.026, Table 6.10). The Vietnamese companies listed on the Ho Chi Minh Stock Exchange have significantly higher overall *de facto* company compliance than the Vietnamese companies listed on the Ha Noi Stock Exchange. In addition, leverage is a significant negative predictor of VAS overall *de facto* company compliance (p=.043, Table 6.9), whereas foreign ownership, business complexity and audit firm type are significant predictors of IAS/IFRS overall *de facto* company compliance (p=.035 for foreign ownership, p=.003 for audit firm, and p=.008 for business complexity, Table 6.10). Companies with higher foreign ownership and/or a more complex business and/or being audited by non-big-four audit firms have higher overall *de facto* compliance with IAS/IFRS. An interesting point from the findings is that the big-four audit firms do not help to diffuse IAS/IFRS in Vietnam while it is thought that the big-four audit firms have positive influence on the convergence with IAS/IFRS around most of the rest of the world (Chand and Patel 2008). Whilst the thesis findings are inconsistent with prior research relating to the impact of audit quality, they are consistent with research which questions the quality of auditing in Vietnam.

Predictors of measurement *de facto* compliance are very different between VAS and IAS/IFRS. State ownership is a significant negative predictor of measurement *de facto* company compliance with VAS (p=.005, Table 6.9); and Vietnamese listed companies

audited by big-four audit firms have significantly higher measurement *de facto* compliance with VAS (p=.011, Table 6.9). Company size is a significant positive predictor (p=.027, Table 6.10) and ROA is a significant negative predictor of IAS/IFRS measurement *de facto* company compliance (p=.022, Table 6.10).

Interestingly, stock exchange location and audit firm type are significant predictors of disclosure *de facto* company compliance for both VAS (p=.002 for stock exchange location and p=.009 for audit firm type) and IAS/IFRS (p=.000 for stock exchange location and p=.005 for audit firm type). Companies listed on the Ho Chi Minh Stock Exchange and/or audited by non-big-four audit firms have significantly higher disclosure *de facto* compliance than companies listed on the Ha Noi Stock Exchange and/or audited by big-four audit firms.

Table 6.9 Stepwise Regression Models for VAS *De facto* Compliance (Main Analysis)

Independent and Control Variables	**Dependent variable: VCI** N 200 F value 6.515 Significant .002 Adjusted R^2 .053 Durbin-Watson 2.217						**Dependent variable: VCI.M** N 200 F value 7.261 Significant .001 Adjusted R^2 .059 Durbin-Watson 1.933						**Dependent variable: VCI.D** N 200 F value 7.569 Significant .001 Adjusted R^2 .062 Durbin-Watson 2.116					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**T**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.818		152.081	.000			.872		253.524	.000			.794		197.004	.000		
Company Size^{IV1}																		
State Ownership^{IV2}							**-.025**	**-.194**	**-2.823**	**.005*****	**1.000**	**1.000**						
Foreign Ownership^{CV1}																		
ROA^{CV2}																		
Leverage^{CV3}	-.020	-.143	-2.039	.043**	.961	1.040												
Stock Exchange Location^{CV4}	-.011	-.177	-2.519	.013**	.961	1.040							-.017	-.220	-3.172	.002***	.983	1.018
Audit Firm Type^{CV5}							.016	.178	2.582	.011**	1.000	1.000	-.021	-.184	-2.652	.009***	.983	1.018
Industry Sector^{CV6}																		
Business Complexity^{CV7}																		
Residuals Statistics	**Min**		**Max**		**Mean**	**SD**	**Min**		**Max**		**Mean**	**SD**	**Min**		**Max**		**Mean**	**SD**
Mahalanobis distance	.995		6.077		1.990	.994	.155		9.109		1.990	2.271	1.065		8.175		1.990	2.109
Cook's distance	.000		.056		.005	.007	.000		.106		.005	.011	.000		.088		.005	.009

Legend: Stepwise regression procedures only show the significant predictors in the above table. VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-7: Control variables. Company Size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership=Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage=Total liabilities/Total Assets; Stock Exchange Location (0=HOSE, 1=HNX); Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items. **Significant (p<.05); ******Highly significant (p<.01).

Table 6.10 Stepwise Regression Models for IAS/IFRS *De facto* Compliance (Main Analysis)

Independent and Control Variables	**Dependent variable: ICI** N 200 F value 10.187 Significant .000 Adjusted R^2 .128 Durbin-Watson 2.089						**Dependent variable: ICI.M** N 200 F value 5.680 Significant .004 Adjusted R^2 .045 Durbin-Watson 1.988						**Dependent variable: ICI.D** N 200 F value 9.125 Significant .000 Adjusted R^2 .075 Durbin-Watson 2.081					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.620		30.944	.000			.720		15.774	.000			.631		151.339	.000		
Company Size^{IV1}							**.004**	**.155**	**2.234**	**.027****	**.992**	**1.008**						
State Ownership^{IV2}																		
Foreign Ownership^{CV1}	.051	.156	2.117	.035**	.803	1.246												
ROA^{CV2}							-.053	-.161	-2.312	.022**	.992	1.008						
Leverage^{CV3}																		
Stock Exchange Location^{CV4}	-.011	-.166	-2.246	.026**	.801	1.249							-.020	-.244	-3.549	.000***	.983	1.018
Audit Firm Type^{CV5}	-.022	-.221	-3.020	.003***	.822	1.217							-.023	-.194	-2.825	.005***	.983	1.018
Industry Sector^{CV6}																		
Business Complexity^{CV7}	.000	.207	2.666	.008***	.729	1.371												
Residuals Statistics	**Min**		**Max**	**Mean**	**SD**		**Min**		**Max**	**Mean**	**SD**		**Min**		**Max**	**Mean**	**SD**	
Mahalanobis distance	1.083		19.878	3.980	4.080		.056		30.618	1.990	3.177		1.065		8.175	1.990	2.109	
Cook's distance	.000		.352	.006	.025		.000		.188	.006	.016		.000		.048	.005	.008	

Legend: Stepwise regression procedures only show the significant predictors in the above table. ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-7: Control variables. Company size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership=Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage = Total liabilities/Total Assets; Stock Exchange Location (0=HOSE, 1=HNX); Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items. **Significant ($p<.05$); ***Highly significant ($p<.01$).

The scatterplots created from stepwise regressions for VAS disclosure *de facto* compliance and IAS/IFRS disclosure *de facto* compliance clearly classify the 200 companies into four groups (see Appendix F, Figure F3 and F6)[28]. Therefore, ANOVA is employed to explore characteristics of the four groups. The analysis shows significant differences in disclosure *de facto* compliance for both VAS and IAS/IFRS and in company specific factors, except for ROA and ROE (see Table 6.11). However, the relationship between disclosure *de facto* compliance and each company specific factor is not in a consistent direction. For instance, the order from the highest to the lowest for VAS disclosure compliance is groups 4, 2, 3 and 1, but the order from the largest to the smallest for company size (measured by total assets) is groups 2, 1, 4 and 3.

The cross-tabulation reveals that the companies classified into groups 1 and 3 are listed on the Ha Noi Stock Exchange and groups 2 and 4 are listed on the Ho Chi Minh Stock Exchange (see Table 6.12). This means that the two groups having virtually the highest disclosure *de facto* compliance with both VAS and IAS are listed on Ho Chi Minh Stock Exchange. This finding provides further confirmation that stock exchange location is a crucially important predictor of disclosure *de facto* company compliance in Vietnam.

Further analysis is provided separately for each stock exchange to explore differences between the two groups listed on each stock exchange. As can be seen from Table 6.11, group 3 (for the Ha Noi Stock Exchange) and group 4 (for the Ho Chi Minh Stock Exchange) with smaller company size, lower leverage and less business complexity (measured as the number of applicable standard items) have higher *de facto* compliance with VAS and IAS/IFRS disclosure than group 1 (for the Ha Noi Stock Exchange) and group 2 (for the Ho Chi Minh Stock Exchange) respectively. An exception is that the relationships of disclosure *de facto* company compliance with state ownership rate and foreign ownership rate are different between the two stock exchanges. For the Ha Noi Stock Exchange, group 3 with lower state ownership and higher foreign ownership has higher disclosure *de facto* compliance with both VAS and IAS/IFRS than group 1; but the opposite direction is observed for the Ho Chi Minh Stock Exchange.

[28]In Appendix F, the four groups shown in Figure F3 are the same as the four groups shown in Figure F6.

Table 6.11 ANOVA Test

Groups	N	VCI.D	ICI.D	Assets (VND billion)	Market Capitalisation (VND billion)	State Ownership Rate	Foreign Ownership Rate	ROA	ROE	Leverage	Applicable VAS Disclosure Items	Applicable IAS/IFRS Disclosure Items
1	9	.7371	.5808	850	292	.4971	.0082	.1156	.3063	.6606	216	229
2	18	.7821	.6124	5,840	6,750	.1896	.1648	.1298	.2474	.5261	223	240
3	91	.7784	.6125	330	107	.3301	.0218	.0956	.2102	.5405	194	203
4	82	.7916	.6306	731	481	.2390	.0880	.1293	.2230	.4468	204	214
ANOVA[1] (sig.)		**.000*****	**.000*****	**.000*****	**.000*****	**.001*****	**.000*****	**.122**	**.193**	**.008*****	**.000*****	**.000*****

Legend: VCI.D: VAS Disclosure *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index; VND: Vietnamese dong. The inter-bank average rate of VND versus USD at 31 December 2010 quoted by the State Bank of Vietnam is one USD being equivalent to VND 18,932.00 (Document No 498/TB-NHNN). ***Highly significant ($p<.01$). [1]As the normality test is not always satisfied for every variable, non-parametric tests (Kruskal-Wallis) are also conducted, showing very similar statistical findings (see Appendix I).

Table 6.12 Stock Exchange Group Cross-Tabulation

			GROUPS				
			1	**2**	**3**	**4**	**Total**
Stock Exchange	**HOSE**	Count	0	18	0	82	100
		% within GROUP	0%	100%	0%	100%	50%
	HNX	Count	9	0	91	0	100
		% within GROUP	100%	0%	100%	0%	50%
Total		Count	9	18	91	82	200
		% within GROUP	100%	100%	100%	100%	100%

Legend: HOSE: Ho Chi Minh Stock Exchange; HNX: Ha Noi Stock Exchange. Groups 1, 2, 3 and 4 in this table are consistent with groups 1, 2, 3 and 4 in Table 6.11.

Overall, the findings from the main analysis partially support the hypotheses stated in Chapter 3 as addressed below:

- ***H1***. *Company size is positively associated with the level of Vietnamese listed companies' overall de facto compliance with accounting standards.*

  H1a. *Company size is positively associated with the level of Vietnamese listed companies' measurement de facto compliance with accounting standards.*

  H1b. *Company size is positively associated with the level of Vietnamese listed companies' disclosure de facto compliance with accounting standards.*

The stepwise regression results in the main analysis do not support the hypothesised relationship between company size (assets) and *de facto* compliance with VAS by Vietnamese listed company at all level: overall (H1), measurement (H1a) and disclosure (H1b). For IAS/IFRS, the findings support the positive relationship between company size and *de facto* compliance with IAS/IFRS by Vietnamese listed companies at measurement level (H1a) only, but not at overall (H1) and disclosure (H1b) levels.

- ***H2***. *The level of state ownership is negatively associated with the level of Vietnamese listed companies' overall de facto compliance with accounting standards.*

  H2a. *The level of state ownership is negatively associated with the level of Vietnamese listed companies' measurement de facto compliance with accounting standards.*

  H2b. *The level of state ownership is negatively associated with the level of Vietnamese listed companies' disclosure de facto compliance with accounting standards.*

The findings from the main analysis support the negative relationship between state ownership and Vietnamese listed companies' *de facto* compliance with VAS at measurement level (H2a) only, but not at overall (H2) and disclosure (H2b) levels. For IAS/IFRS, the findings do not support the hypothesised relationship at all levels: overall (H2), measurement (H2a) and disclosure (H2b).

Some control variables help explain the levels of *de facto* compliance with VAS and IAS/IFRS by Vietnamese listed companies. Regarding *de facto* company compliance

with VAS, stock exchange location is an important factor affecting VAS *de facto* compliance at the overall and disclosure levels. Audit firm type is a significant predictor of VAS measurement and disclosure *de facto* compliance; and leverage is a significant predictor of VAS overall *de facto* compliance. With regard to *de facto* compliance with IAS/IFRS by Vietnamese listed companies, stock exchange location and audit firm type are important predictors of IAS/IFRS compliance at the overall and disclosure levels. Foreign ownership and business complexity are significant predictors of IAS/IFRS overall *de facto* compliance; and ROA is a significant predictor of IAS/IFRS measurement *de facto* compliance.

6.3.2.3 Sensitivity Analysis

Sensitivity analysis employs the same regression procedures as the main analysis with alternative measures of independent and control variables where appropriate to explore if there are any fundamental differences related solely to the proxy measures of the constructs. Specifically, company size is measured by the natural logarithm of market capitalisation instead of total assets; state ownership and foreign ownership are measured as dichotomous variables with the benchmarks of 20% and 5% respectively; profitability is quantified by ROE instead of ROA; the leverage figure is alternatively calculated using long-term liabilities instead of total liabilities; industry is now categorised as high profile or low profile; and business complexity is instead measured as a dichotomous variable (non-subsidiary or subsidiaries). The full regression models are presented in Appendix J and the final stepwise models are shown in Tables 6.13 and 6.14 respectively for VAS and IAS/IFRS compliance.

Table 6.13 Stepwise Regressions for VAS *De facto* Compliance (Sensitivity Analysis)

Independent and Control Variables	**Dependent variable: VCI** N 200 F value 8.736 Significant .003 Adjusted R^2 .037 Durbin-Watson 2.214						**Dependent variable: VCI.M** N 200 F value 13.101 Significant .000 Adjusted R^2 .105 Durbin-Watson 1.896						**Dependent variable: VCI.D** N 200 F value 7.569 Significant .001 Adjusted R^2 .062 Durbin-Watson 2.116					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.809		263.017	.000			.870		244.310	.000			.794		197.004	.000		
Company Size^{IV1}																		
State Ownership^{IV2}							**-.015**	**-.245**	**-3.645**	**.000*****	**.997**	**1.003**						
Foreign Ownership^{CV1}																		
ROE^{CV2}																		
Leverage^{CV3}							.035	.173	2.576	.011**	.994	1.006						
Stock Exchange Location^{CV4}	-.013	-.206	-2.956	.003***	1.000	1.000							-.017	-.220	-3.172	.002***	.983	1.018
Audit Firm Type^{CV5}							.014	.151	2.242	.026**	.992	1.008	-.021	-.184	-2.652	.009***	.983	1.018
Industry Profile^{CV6}																		
Business Complexity^{CV7}																		
Residuals Statistics	**Min**		**Max**		**Mean**	**SD**	**Min**		**Max**		**Mean**	**SD**	**Min**		**Max**		**Mean**	**SD**
Mahalanobis distance	.995		.995		.995	.000	.845		19.932		2.985	3.186	1.065		8.175		1.990	2.109
Cook's distance	.000		.034		.005	.007	.000		.096		.005	.011	.000		.088		.005	.009

Legend: Stepwise regression procedures only show the significant predictors in the above table. VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-7: Control variables. Company size=Ln Market Capitalisation; State Ownership (0=lower than 20%, 1=equal or higher than 20%); Foreign Ownership (0= lower than 5%, 1=equal or higher than 5%); ROE=Profit before tax/Equity; Leverage=Long-term liability/Total Assets; Stock Exchange Location (0=HOSE, 1=HNX); Audit Firm Type (0=non-big-four, 1=big-four); Industry Profile (0=low profile, 1=high profile); Business Complexity (0=No subsidiary, 1=Subsidiaries).**Significant ($p<.05$); ***Highly significant ($p<.01$).

Table 6.14 Stepwise Regressions for IAS/IFRS *De facto* Compliance (Sensitivity Analysis)

Independent and Control Variables	**Dependent variable: ICI** N 200 F value 15.045 Significant .000 Adjusted R^2 .066 Durbin-Watson 2.122						**Dependent variable: ICI.M** N 200 F value 9.478 Significant .000 Adjusted R^2 .079 Durbin-Watson 1.981						**Dependent variable: ICI.D** N 200 F value 9.125 Significant .000 Adjusted R^2 .075 Durbin-Watson 2.081					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.676		205.274	.000			.816		212.237	.000			.631		151.339	.000		
Company Size^{IV1}																		
State Ownership^{IV2}							**-.010**	**-.131**	**-2.202**	**.029****	**.980**	**1.021**						
Foreign Ownership^{CV1}																		
ROE^{CV2}																		
Leverage^{CV3}																		
Stock Exchange Location^{CV4}	-.018	-.266	-3.879	.000***	1.000	1.000							-.020	-.244	-3.549	.000***	.983	1.018
Audit Firm Type^{CV5}													-.023	-.194	-2.825	.005***	.983	1.018
Industry Profile^{CV6}																		
Business Complexity^{CV7}							.016	.234	3.404	.001***	.980	1.021						
Residuals Statistics	**Min**		**Max**		**Mean**	**SD**	**Min**		**Max**		**Mean**	**SD**	**Min**		**Max**		**Mean**	**SD**
Mahalanobis distance	.995		.995		.995	.000	1.035		3.308		1.990	.931	1.065		8.175		1.990	2.109
Cook's distance	.000		.088		.005	.009	.000		.144		.005	.012	.000		.048		.005	.008

Legend: Stepwise regression procedures only show the significant predictors in the above table. ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-7: Control variables. Company size=Ln Market Capitalisation; State Ownership (0=lower than 20%, 1=equal or higher than 20%); Foreign Ownership (0=lower than 5%, 1=equal or higher than 5%); ROE=Profit before tax/Equity; Leverage=Long-term liability/Total Assets; Stock Exchange Location (0=HOSE, 1=HNX); Audit Firm Type (0=non-big-four, 1=big-four); Industry Profile (0=low profile, 1=high profile); Business Complexity (0=No subsidiary, 1=Subsidiaries). **Significant ($p<.05$); ***Highly significant ($p<.01$).

Sensitivity analysis provides confirmatory evidence that stock exchange location is clearly a predictor of overall *de facto* company compliance for both VAS (p=.003, Table 6.13) and IAS/IFRS (p=.000, Table 6.14)[29]. However, leverage is not a significant predictor of overall *de facto* company compliance with VAS when long-term liability is used instead of total liabilities to calculate leverage. In the main analysis, foreign ownership, audit firm type and business complexity (number of applicable IAS/IFRS items) are also significant predictors of overall *de facto* compliance with IAS/IFRS, but these control variables are not significant predictors in the sensitivity analysis.

Similar to the main analysis, state ownership and audit firm type are also significantly associated with measurement *de facto* company compliance with VAS in the sensitivity analysis (p=.000 for state ownership and p=.026 for audit firm type, Table 6.13). A difference in explanatory factors of *de facto* company compliance with VAS measurement between the main and sensitivity analyses is that leverage is not a significant predictor in the main analysis, but is shown as a significant positive predictor of *de facto* compliance with VAS measurement in the sensitivity analysis (p=.011, Table 6.13). For IAS/IFRS measurement *de facto* company compliance, the findings are fundamentally different between the main and sensitivity analyses. Particularly, company size (total assets) and ROA are significant predictors of IAS/IFRS measurement *de facto* company compliance in the main analysis, but are not significant predictors in the sensitivity analysis. Instead, state ownership and business complexity are significant negative and positive predictors respectively in the sensitivity analysis (p=.029 for state ownership and p=.000 for business complexity, Table 6.14).

[29]The scatter plots created from the stepwise regressions for VASoverall *de facto* company compliance and IAS/IFRS overall *de facto* company compliance in the sensitivity analysis clearly classify the 200 companies into two groups (see Appendix K). Interestingly, the two groups are the same as the two stock exchange groups. T-tests presented in Table 6.1 (Section 6.1) and Table 6.6 (Section 6.3.1) show that the companies listed on the Ho Chi Minh Stock Exchange with significantly larger size (total assets and market capitalisation), lower state ownership, higher foreign ownership, higher profitability (ROA and ROE), lower leverage and more business complexity (more applicable VAS and IAS/IFRS items) has significantly higher overall *de facto* compliance with both VAS and IAS/IFRS than the companies listed on the Ha Noi Stock Exchange. This finding again highlights stock exchange location as a major predictor of overall compliance for both VAS and IAS/IFRS.

Interestingly, stock exchange location and audit firm type are consistently significant predictors of disclosure *de facto* company compliance for VAS and IAS/IFRS in both main and sensitivity analyses.

Overall, the sensitivity analysis does not support the hypothesised relationship between company size (measured as market capitalisation) at all levels: overall (H1), measurement (H1a) and disclosure (H1b) for both VAS and IAS/IFRS, although the hypothesis H1a for IAS/IFRS is accepted in the main analysis where total assets is the proxy of company size. Yet, the sensitivity analysis better supports hypothesis H2a positing the negative relationship between state ownership and Vietnamese listed companies' *de facto* compliance with measurement rules. This hypothesis (H2a) is accepted for VAS only in the main analysis but is accepted for both VAS and IAS/IFRS in the sensitivity analysis. Neither the main nor sensitivity analyses support a hypothesised relationship between state ownership and *de facto* company compliance at the overall (H2) and disclosure levels (H2b) for both VAS and IAS/IFRS.

With regard to the influence of control variables, the statistical findings are mostly consistent between the main and sensitivity analyses for VAS *de facto* company compliance. The sole difference is that leverage is a significant predictor of VAS *de facto* company compliance at the overall level in the main analysis; however, in the sensitivity analysis it is a significant explanatory factor of VAS *de facto* company compliance for the measurement component (but not for overall level). For IAS/IFRS *de facto* company compliance, control variables are found to be less explanatory in the sensitivity analysis than in the main analysis. Specifically in the main analysis, foreign ownership, leverage, stock exchange location and business complexity are control variables significantly affecting overall *de facto* compliance with IAS/IFRS by Vietnamese listed companies, whilst stock exchange location is the sole control variable explaining overall *de facto* company compliance with IAS/IFRS in the sensitivity analysis. Control variables affecting *de facto* company compliance with IAS/IFRS measurement are completely different between the main and sensitivity analyses; those are ROA and business complexity in the main and sensitivity analyses respectively. Yet,

stock exchange location and audit firm type are control variables consistently explaining *de facto* company compliance with IAS/IFRS disclosure in both main and sensitivity analyses.

6.3.2.4 Additional Analysis

The same regression procedures and measures of variables employed in the main analysis are partitioned and applied separately for the two stock exchange sub-samples to investigate fundamental differences between the two stock exchange sub-samples. The final stepwise regression models for the Ha Noi and Ho Chi Minh stock exchanges' sub-samples are presented in Tables 6.15 and 6.16 respectively (see equivalent full multiple regression models in Appendices L and M).

Stepwise regressions for the Ha Noi Stock Exchange sub-sample only generate significant models for *de facto* company compliance with VAS at overall and disclosure levels and with IAS/IFRS at disclosure level (see Table 6.15). The final stepwise regression models consistently show leverage and audit firm type are significant predictors. Particularly, leverage is significantly and negatively associated with VAS *de facto* compliance at the overall (p=.030) and disclosure (p=.013) levels, and IAS/IFRS disclosure *de facto* compliance (p=.046). Vietnamese companies listed on the Ha Noi Stock Exchange, being audited by big-four audit firms have significantly lower overall *de facto* compliance with VAS (p=.020), and have significantly lower disclosure *de facto* compliance for both VAS (p=.002) and IAS/IFRS (p=.019). The stepwise regressions do not show any significant factors affecting measurement *de facto* compliance for both VAS and IAS/IFRS by Vietnamese companies listed on the Ha Noi Stock Exchange.

The final stepwise models for the Ho Chi Minh Stock Exchange sub-sample (see Table 6.16) show factors explaining *de facto* company compliance are quite consistent between VAS and IAS/IFRS. The two independent variables (company size and state ownership) are significant predictors of measurement *de facto* company compliance for

both VAS and IAS/IFRS. Company size is positively associated with measurement *de facto* company compliance (p=.002 for VAS and p=.008 for IAS/IFRS); and state ownership is negatively associated with measurement *de facto* company compliance (p=.002 for VAS and p=.018 for IAS/IFRS). Business complexity is a significant positive predictor of overall *de facto* compliance for both VAS (p=.011) and IAS/IFRS (p=.001). The sole difference is that audit firm type is a significant predictor of overall *de facto* company compliance for IAS/IFRS (p=.033) but not for VAS. Companies listed on the Ho Chi Minh Stock Exchange and being audited by big-four audit firms have significantly lower overall *de facto* compliance with IAS/IFRS than companies listed on the Ho Chi Minh Stock Exchange and being audited by non-big-four audit firms. Stepwise regressions do not show any significant factors explaining disclosure *de facto* compliance for both VAS and IAS/IFRS by Vietnamese companies listed on the Ho Chi Minh Stock Exchange.

This additional analysis provides further insights by partitioning Vietnam's *de facto* company compliance data by stock exchange location. Factors affecting Vietnamese company compliance with accounting standards are completely different between the two stock exchanges. This highlights an important finding that stock exchange location itself is a major predictor of company compliance with accounting standards as found in the main and sensitivity analyses for the full sample. The hypotheses positing the relationship between the two independent variables (company size and state ownership) and *de facto* company compliance with accounting standards are supported for the measurement perspective in the Ho Chi Minh Stock Exchange sub-sample, but are rejected in the Ha Noi Stock Exchange sub-sample.

Table 6.15 Ha Noi Stock Exchange Sub-Sample: Stepwise Regression Models

Independent and Control Variables	**Dependent variable: VCI** N 100 F value 6.094 Significant .003 Adjusted R^2 .093 Durbin-Watson 1.998						**Dependent variable: VCI.D** N 100 F value 9.566 Significant .000 Adjusted R^2 .148 Durbin-Watson 1.971						**Dependent variable: ICI.D** N 100 F value 5.781 Significant .004 Adjusted R^2 .087 Durbin-Watson 1.909					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.813		115.332	.000			.798		95.435	.000			.628		74.658	.000		
Company Size^{IV1}																		
State Ownership^{IV2}																		
Foreign Ownership^{CV1}																		
ROA^{CV2}																		
Leverage^{CV3}	-.026	-.214	-2.209	.030**	.979	1.021	-.036	-.237	-2.532	.013**	.979	1.021	-.029	-.196	-2.018	.046**	.979	1.021
Audit Firm Type^{CV4}	-.023	-.228	-2.357	.020**	.979	1.021	-.037	-.297	-3.164	.002***	.979	1.021	-.028	-.232	-2.394	.019**	.979	1.021
Industry Sector^{CV5}																		
Business Complexity^{CV6}																		
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	.100		13.547	1.980		2.910	.100		13.547	1.980		2.910	.100		13.547	1.980		2.910
Cook's distance	.000		.094	.011		.019	.000		.187	.011		.025	.000		.105	.011		.017

Legend: Stepwise regression procedures only generate the significant models for VCI, VCI.D and ICI.D; and only show the significant predictors in the above table. VCI: VAS Overall *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-6: Control variables. Company size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership=Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage=Total liabilities/Total Assets; Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items. **Significant (p<.05); ***Highly significant (p<.01).

Table 6.16 Ho Chi Minh Stock Exchange Sub-Sample: Stepwise Regression Models

Panel A: Stepwise Regression Models for VAS *De facto* Compliance

Independent and Control Variables	Dependent variable: VCI						Dependent variable: VCI.M					
	N = 100; F value = 6.723; Significant = .011; Adjusted R^2 = .055; Durbin-Watson = 2.205						N = 100; F value = 10.452; Significant = .000; Adjusted R^2 = .160; Durbin-Watson = 1.887					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.743		28.843	.000			.650		9.148	.000		
Company Size^{IV1}							**.008**	**.293**	**3.178**	**.002*****	**.998**	**1.002**
State Ownership^{IV2}							**-.038**	**-.291**	**-3.152**	**.002*****	**.998**	**1.002**
Foreign Ownership^{CV1}												
ROA^{CV2}												
Leverage^{CV3}												
Audit Firm Type^{CV4}												
Industry Sector^{CV5}												
Business Complexity^{CV6}	.000	.253	2.593	.011**	1.000	1.000						
Residuals Statistics	**Min**		**Max**		**Mean**	**SD**	**Min**		**Max**	**Mean**	**SD**	
Mahalanobis distance	.003		11.926		.990	1.775	.007		11.774	1.980	2.137	
Cook's distance	.000		.044		.008	.010	.000		.090	.008	.014	

Panel B: Stepwise Regression Models for IAS/IFRS *De facto* Compliance

Independent and Control Variables	Dependent variable: ICI						Dependent variable: ICI.M					
	N = 100; F value = 5.832; Significant = .004; Adjusted R^2 = .089; Durbin-Watson = 2.016						N = 100; F value = 6.922; Significant = .002; Adjusted R^2 = .107; Durbin-Watson = 1.967					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.587		20.896	.000			.610		7.837	.000		
Company Size^{IV1}							**.008**	**.259**	**2.725**	**.008*****	**.998**	**1.002**
State Ownership^{IV2}							**-.032**	**-.230**	**-2.417**	**.018****	**.998**	**1.002**
Foreign Ownership^{CV1}												
ROA^{CV2}												
Leverage^{CV3}												
Audit Firm Type^{CV4}	-.022	-.226	-2.166	.033**	.847	1.181						
Industry Sector^{CV5}												
Business Complexity^{CV6}	.000	.342	3.277	.001***	.847	1.181						
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**	**SD**	
Mahalanobis distance	.218		12.076	1.980		2.582	.007		11.774	1.980	2.137	
Cook's distance	.000		.073	.008		.013	.000		.076	.008	.013	

Legend: Stepwise regression procedures only generate the significant models for VCI, VCI.M, ICI and ICI.M; and only show the significant predictors in the above table. VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-6: Control variables. Company size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership=Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage=Total liabilities/Total Assets; Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items. **Significant (p<.05); ***Highly significant (p<.01).

6.4 Summary

This chapter set out to address three research questions: What is the level of 'overall', 'measurement' and 'disclosure' *de facto* compliance with VAS by Vietnamese listed companies' annual financial reports? What is the level of 'overall', 'measurement' and 'disclosure' *de facto*compliance with IAS/IFRS by Vietnamese listed companies' annual financial reports?,and What factors help explain the levels of *de facto* company compliance with VAS and IAS/IFRS in Vietnam? Each of these issues is addressed below.

The extent of overall *de facto* compliance with VAS is significantly higher than with IAS/IFRS by Vietnamese listed companies, 80% and 67% respectively. This significant difference may be due to a modest *de jure* convergence between VAS and IAS/IFRS. Moreover, within this overall figure the analysis shows that the extent of measurement *de facto* compliance is significantly higher than disclosure compliance, 87% and 78% respectively for VAS, and 82% and 62% respectively for IAS/IFRS. The average (by standards) of Vietnamese listed companies' overall *de facto* compliance is 73% for VAS and 66% for IAS/IFRS, significantly lower than the expected benchmark figures (100% for VAS and 90% for IAS/IFRS).

Major measurement non-compliance is related to estimation issues such as depreciation and impairment loss of property, plant, equipment and intangible assets, and provision estimates. Disclosure non-compliance is even more problematic for Vietnamese listed companies. Disclosure non-compliance (less than 50% compliance) for both VAS and IAS/IFRS is highlighted for construction contracts, leases, business combination, provisions, events after the reporting period and segment reporting/operating segment. In addition, disclosure non-compliance with IAS/IFRS is also noted for borrowing costs, investments in associates, related party disclosure and interests in joint ventures.

The research findings support the stated hypotheses for the measurement compliance perspective only. Company size (total assets) is a significant positive predictor of IAS/IFRS measurement compliance. State ownership is clearly a negative predictor of

measurement *de facto* company compliance for VAS, but is only shown as a significant negative predictor of measurement *de facto* company compliance for IAS/IFRS in the sensitivity analysis where state ownership is measured as a dichotomous variable with the benchmark of 20%. Stock exchange location, advanced as a control variable in this thesis, is a major determinant of *de facto* company compliance for both VAS and IAS/IFRS at the overall and disclosure levels. The Vietnamese companies listed on the Ho Chi Minh Stock Exchange have better overall *de facto* compliance with accounting standards, especially for disclosure requirements, than the companies listed on the Ha Noi Stock Exchange. In addition, audit firm type, another control variable, is a predictive factor significantly affecting *de facto* company compliance with accounting standards in Vietnam. Big-four audit-related companies have better VAS measurement *de facto* compliance. In contrast, the non-big-four audit-related companies have better disclosure compliance for both VAS and IAS/IFRS. This finding implies an inconsistent influence of the big-four audit firms on accounting compliance in Vietnam.

The modest *de facto* compliance with accounting standards by Vietnamese listed companies implies weak mechanisms (e.g. enforcement, auditing and corporate governance) for implementing accounting standards in Vietnam. Especially, the more modest *de facto* company compliance with IAS/IFRS is possibly related to the modest *de jure* convergence of VAS with IAS/IFRS. The next chapter examines more closely the linkages between *de jure* convergence of VAS with IAS/IFRS and actual *de facto* compliance by Vietnamese listed companies in their annual financial reports.

Chapter 7 Comparing *De jure* Convergence and *De facto* Compliance

7.0 Introduction

The findings of VAS and IAS/IFRS *de jure* convergence as well as actual reporting practices by Vietnamese listed companies (discussed in Chapters 5 and 6 respectively) consistently show modest levels of *de jure* national/international accounting standards convergence and Vietnamese listed companies' annual financial report *de facto* compliance. The level of overall *de jure* convergence of VAS and (current) IAS/IFRS is a relatively modest 62%, whereas the levels of overall *de facto* company compliance are 80% for VAS and 67% for IAS/IFRS. It is often thought that *de jure* convergence leads to *de facto* convergence (Van der Tas 1988; Rahman, Perera, and Ganeshanandam 1996; Garrido, León, and Zorio 2002). Yet, compliance with accounting standards is as important as the standards themselves (Hodgdon et al. 2008). This chapter thus addresses the final research question: Is *de jure* convergence related to *de facto* company compliance in Vietnam?

An analysis of differences between the levels of *de jure* convergence and *de facto* company compliance (convergence) with (current) IAS/IFRS for individual standards begins in Section 7.1. This investigates whether accounting standards with higher *de jure* convergence have higher *de facto* company compliance with IAS/IFRS. In Sections 7.2 and 7.3 Pearson correlations and multiple regressions respectively are employed to explore the linkages between *de jure* VAS-IAS/IFRS convergence and *de facto* company compliance in Vietnam.

7.1 Differences between IAS/IFRS *De jure* Convergence and *De facto* Compliance

The differences between overall *de jure* convergence of VAS with IAS/FRS and *de facto* compliance with IAS/IFRS by Vietnamese listed companies for individual standards are presented in Table 7.1. A positive difference reflects the gap between expected compliance of VAS with IAS/IFRS (*de jure* convergence between VAS and IAS/IFRS) and Vietnamese actual company reporting practice (*de facto*) compliance with

IAS/IFRS. A negative difference may imply that additional IAS/IFRS requirements are voluntarily adopted by or are not relevant to Vietnamese listed companies.

Table 7.1 Differences between Overall *De jure* Convergence and Overall *De facto* Compliance with IAS/IFRS

Standards	**DJCS**	**ICI**	**Δ(DJCS-ICI)**
Events after the Reporting Period	1.00	0.13	**0.87**
Provisions, Contingent Liabilities and Contingent Assets	1.00	0.40	**0.60**
Construction Contracts	0.89	0.52	**0.37**
Leases	0.60	0.42	**0.18**
Segment Reporting/Operating Segment	0.25	0.12	0.13
Earnings per Share	0.88	0.83	0.05
Related Party Disclosures	0.31	0.29	0.02
Accounting Policies, Changes in Accounting Estimate and Errors	0.95	0.96	-0.01
Interests in Joint Ventures	0.62	0.64	-0.02
Intangible Assets	0.66	0.68	-0.02
Borrowing Costs	0.92	0.95	-0.03
Revenue	0.94	0.98	-0.04
Inventory	0.73	0.79	-0.06
Business Combinations	0.35	0.44	-0.09
Investment Property	0.61	0.74	-0.13
Statement of Cash Flows	0.75	0.95	**-0.20**
Investments in Associates	0.22	0.42	**-0.20**
Income Tax	0.70	0.92	**-0.22**
Property, Plant and Equipment	0.58	0.80	**-0.22**
Presentation of Financial Statements	0.50	0.76	**-0.26**
The Effects of Changes in Foreign Exchange Rates	0.55	0.82	**-0.27**
Consolidated and Separate Financial Statements	0.28	0.94	**-0.66**
Mean	**0.65**	**0.66**	**-0.01**
Minimum	0.22	0.12	-0.66
Maximum	1.00	0.98	0.87
Standard Deviation	0.25	0.27	0.32

Legend: DJCS: Overall *De jure* Convergence Score; ICI: IAS/IFRS Overall *De facto* Compliance Index; Δ: Difference.

As can be seen from Table 7.1, despite a small mean difference (-0.01) between *de jure* convergence and *de facto* company compliance, the differences for individual standards range widely from -0.66 to 0.87. The largest positive differences are observed for the standards 'Events after the Reporting Period' and 'Provisions, Contingent Liabilities and Contingent Assets' which have 100% *de jure* convergence but very low *de facto* company compliance with the IAS/IFRS standards (13% and 40% respectively).

Similarly, a large positive difference between overall *de jure* convergence and overall *de facto* compliance with IAS/IFRS is also noticeable for the standards 'Construction Contract' and 'Leases'. These findings imply that VAS *de jure* convergence with the above four IASB standards is in form, but not in substance. Perhaps, Vietnamese accounting regulators need to consider the suitability and obstacles for implementing these standards in Vietnam's context.

The last seven standards in Table 7.1 with large negative differences between overall *de jure* convergence and overall *de facto* company compliance with IAS/IFRS reflect a different story. For these standards, overall *de facto* company compliance is far higher than their overall *de jure* convergence with IAS/IFRS. There are two possible reasons for this pattern. Vietnamese listed companies may voluntarily adopt additional IAS/IFRS requirements relative to VAS for these standards, leading to higher overall *de facto* company compliance. Another possible reason is that numerous unique IAS/IFRS requirements for these standards are not relevant to most Vietnamese listed companies and are thus appropriately coded as 'non-applicable' (therein not reducing the stated *de facto* company compliance rate). When examining the data, a strong case can be made for the second explanation. This implies that many elements of the IASB standards may have little relevance within Vietnam's context.

Splitting into measurement and disclosure elements, the patterns are very different (see Tables 7.2 and 7.3). The mean of difference between *de jure* convergence and *de facto* company compliance with IAS/IFRS measurement rules is negative 0.13 with only five standards demonstrating positive differences. In contrast, the mean difference between *de jure* convergence and *de facto* company compliance with IAS/IFRS disclosure requirements is positive 0.05 with greater variance between standards. The following analyses provide insights into the measurement and disclosure perspectives.

The differences between *de jure* convergenceand *de facto* compliance with IAS/IFRS measurement rules are presented in Table 7.2. The majority of standards have

measurement *de facto* company compliance higher than measurement *de jure* convergence.

Table 7.2 Differences between *De jure* Convergence and *De facto* Compliance with IAS/IFRS Measurement

Standards	DJCS.M	ICI.M	Δ(DJCS.M-ICI.M)
Provisions, Contingent Liabilities and Contingent Assets	1.00	0.52	**0.48**
Events after the Reporting Period	1.00	0.85	0.15
Intangible Assets	0.81	0.68	0.13
Borrowing Costs	1.00	0.99	0.01
Revenue	1.00	0.99	0.01
Presentation of Financial Statements	1.00	1.00	0
Accounting Policies, Changes in Accounting Estimate and Errors	0.95	0.99	-0.04
Interests in Joint Ventures	0.76	0.81	-0.05
Property, Plant and Equipment	0.60	0.66	-0.06
Earnings per Share	0.91	0.99	-0.08
Construction Contracts	0.89	0.98	-0.09
Leases	0.82	0.95	-0.13
Income Tax	0.84	0.99	-0.15
Investment Property	0.67	0.85	-0.18
Inventory	0.77	0.99	-0.22
The Effects of Changes in Foreign Exchange Rates	0.65	0.87	-0.22
Business Combinations	0.32	0.67	-0.35
Investments in Associates	0.38	0.93	**-0.55**
Consolidated and Separate Financial Statements	0.40	0.98	**-0.58**
Statement of Cash Flows	0.25	1.00	**-0.75**
Mean	**0.75**	**0.88**	**-0.13**
Minimum	0.25	0.52	-0.75
Maximum	1.00	1.00	0.48
Standard Deviation	0.25	0.14	0.27

Legend: DJCS.M: Measurement *De jure* Convergence Score; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; Δ: Difference.

The largest positive difference is observed for the standard 'Provisions, Contingent Liabilities and Contingent Assets' with 100% measurement *de jure* convergence but

only 52% measurement *de facto* company compliance. This is probably because this standard requires a high level of professional judgment but Vietnamese accountants are most accustomed to detailed guides rather than making wide-ranging judgments (Nguyen and Richard 2011). In contrast, the standards 'Investments in Associates', 'Consolidated and Separate Financial Statements' and 'Statement of Cash flows' have very low measurement *de jure* convergence (from 25% to 40%) but have very high measurement *de facto* company compliance (over 90%) because numerous measurement items promulgated in these IAS/IFRS standards are non-applicable to most of the Vietnamese companies in the sample (this phenomenon increases the company compliance score). In a similar vein, four other standards, namely, 'Investment Property', 'Inventory', 'The Effects of Changes in Foreign Exchange Rates' and 'Business Combination' also have quite large negative differences between measurement *de jure* convergence and measurement *de facto* company compliance. These findings imply the extent of relevance of IAS/IFRS measurement rules to Vietnam's context is low. An exception is that the standard 'Presentation of Financial Statements' has 100% measurement convergence for both *de jure* and *de facto.* The measurement rules formulated in this standard relate to the general basis for preparing financial statements such as going concern and accrual basis; these are well adopted by Vietnamese listed companies as little professional judgment is required.

The differences between *de jure* convergence and *de facto* compliance with IAS/IFRS disclosure rules shown in Table 7.3 present a different picture from the measurement pattern. Many standards have large positive differences between *de jure* convergence and *de facto* company compliance with IAS/IFRS disclosure rules. This pattern enhances the conclusion that *de facto* company compliance with IAS/IFRS disclosure is more problematic than *de facto* company compliance with IAS/IFRS measurement in Vietnam. For instance, the first two standards ('Event after Reporting Period' and 'Provisions, Contingent Liabilities and Contingent Assets') demonstrate 100% disclosure *de jure* convergence but very low *de facto* company compliance with IAS/IFRS disclosure (10% and 31% respectively). Similarly, the next four standards have high or moderate disclosure *de jure* convergence but have low *de facto* company

compliance with IAS/IFRS disclosure. This implies that *de jure* convergence alone is not sufficient to achieve *de facto* convergence with IAS/IFRS, but compliance enforcement is also important.

Table 7.3 Differences between *De jure* Convergence and *De facto* Compliance with IAS/IFRS Disclosure

Standards	**DJCS.D**	**ICI.D**	**Δ(DJCS.D-ICI.D)**
Events after the Reporting Period	1.00	0.10	**0.90**
Provisions, Contingent Liabilities and Contingent Assets	1.00	0.31	**0.69**
Construction Contracts	0.89	0.31	**0.58**
Accounting Policies, Changes in Accounting Estimate and Errors	0.95	0.52	**0.43**
Business Combinations	0.75	0.33	**0.42**
Borrowing Costs	0.67	0.27	**0.40**
Leases	0.44	0.21	0.23
Inventory	0.67	0.51	0.16
Segment Reporting/Operating Segment	0.24	0.12	0.12
Related Party Disclosures	0.31	0.29	0.02
Earnings per Share	0.81	0.81	0
Revenue	0.87	0.97	-0.1
Investment Property	0.59	0.69	-0.1
Statement of Cash Flows	0.82	0.94	-0.12
Intangible Assets	0.54	0.68	-0.14
Investments in Associates	0.11	0.26	-0.15
Interests in Joint Ventures	0.31	0.49	-0.18
Income Tax	0.59	0.84	-0.25
Presentation of Financial Statements	0.49	0.75	-0.26
The Effects of Changes in Foreign Exchange Rates	0.40	0.73	**-0.33**
Property, Plant and Equipment	0.56	0.98	**-0.42**
Consolidated and Separate Financial Statements	0.22	0.90	**-0.68**
Mean	**0.60**	**0.55**	**0.05**
Minimum	0.11	0.10	-0.68
Maximum	1.00	0.98	0.90
Standard Deviation	0.27	0.29	0.39

Legend: DJCS.D: Disclosure *De jure* Convergence Score; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index; Δ: Difference.

In contrast, the three last standards in Table 7.3, that is, 'The Effects of Changes in Foreign Exchange Rates', 'Property, Plant and Equipment' and 'Consolidated and Separate Financial Statements', exhibit very large negative differences because many additional IAS/IFRS disclosure requirements are not relevant to most of the Vietnamese listed companies in the sample.

A comparison of Tables 7.2 and 7.3 shows that some standards have a negative measurement *de jure/de facto* compliance difference but have a positive disclosure *de jure/de facto* compliance difference. These standards include 'Construction Contracts', 'Leases', 'Accounting Policies, Changes in Accounting Estimates and Errors', 'Inventory' and 'Business Combination'. An exception is the standard 'Intangible Assets' with a positive measurement *de jure/de facto* compliance difference but with a negative disclosure *de jure/de facto* compliance difference. These findings reinforce the conclusion that measurement and disclosure patterns generate different convergence stories in Vietnam; therefore, both of these categories are analysed separately in the following sections.

The findings in this section suggest that *de jure* convergence does not always lead to *de facto* convergence when looking at individual standards, specifically in the Vietnamese context. It seems that *de jure* convergence is not the only factor affecting *de facto* compliance with IAS/IFRS in Vietnam, but the actual company reporting compliance practice with VAS is possibly a crucial explanatory factor. The next section examines further the bivariate correlations of *de jure* convergence and *de facto* compliance, and the correlations of VAS *de facto* company compliance and IAS/IFRS *de facto* company compliance in Vietnam.

7.2 Pearson Correlations

The Pearson correlation coefficients of *de jure* convergence and *de facto* compliance are presented in Table 7.4 (Panel A). The correlations of VAS-IAS/IFRS *de jure* convergence and VAS *de facto* company compliance are very weak at all levels (overall,

measurement and disclosure) with the coefficients ranging from 0.063 to 0.169. In addition, these correlations are not consistently in the same direction; specifically, they are positive for the overall level but negative for the measurement and disclosure elements. Therefore, *de jure* convergence of VAS and IAS/IFRS is not deemed to be consistently highly correlated with VAS *de facto* company compliance in Vietnam. The Pearson coefficients demonstrate weak and positive correlations between VAS-IAS/IFRS *de jure* convergence and IAS/IFRS *de facto* company compliance at all overall (.288), measurement (.095) and disclosure (.043) levels in Vietnam.

Table 7.4 Pearson Correlations: *De jure* Convergence and *De facto* Compliance

Panel A: *De jure* Convergence and *De facto* Compliance Correlations			
	DJCS	**DJCS.M**	**DJCS.D**
VCI	.063	-.045	-.064
VCI.M	-.151	-.095	-.179
VCI.D	-.050	-.123	-.169
ICI	.288	.074	.153
ICI.M	.052	.095	-.101
ICI.D	.067	-.123	.043
Panel B: VAS *De facto* Compliance and IAS/IFRS *De facto* Compliance			
	VCI	**VCI.M**	**VCI.D**
ICI	.902***	.355	.787***
ICI.M	.532**	.927***	.374
ICI.D	.726***	.165	.779***

Legend: DJCS: Overall *De jure* Convergence Score; DJCS.M: Measurement *De jure* Convergence Score; DJCS.D: Disclosure *De jure* Convergence Score; VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index; ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. **Correlation is significant (p<.05); ***Correlation is highly significant (p<.01).

Pearson coefficients (see Table 7.4, Panel B) show strong and positive correlations between VAS *de facto* compliance and IAS/IFRS *de facto* compliance by Vietnamese listed companies at the overall level (0.902) as well as the measurement (0.927) and disclosure (0.799) elements. These correlations are significant (p<.01). VAS *de facto* compliance reflects the actual company reporting practice compliance in Vietnam as Vietnamese companies are obliged to comply with the VAS, while IAS/IFRS *de facto* company compliance reflects *de facto* convergence with IAS/IFRS in Vietnam. Thus,

the correlation findings presented in Table 7.4 support the conclusion that the actual company reporting practice compliance has a strong influence on *de facto* convergence with IAS/IFRS in Vietnam.

The findings from Pearson correlations imply that VAS *de facto* compliance is a likely predictor of *de facto* compliance (convergence) with IAS/IFRS in Vietnam. Although the Pearson coefficients show a weak correlation of *de jure* and *de facto* convergence with IAS/IFRS in Vietnam, IAS/IFRS *de jure* convergence is still considered to be a possible predictor of IAS/IFRS *de facto* convergence in Vietnam because it is commonly believed that *de jure* convergence is considered an antecedent factor for *de facto* convergence (Van der Tas 1988; Rahman, Perera, and Ganeshanandam 1996; Garrido, León, and Zorio 2002; Fontes, Rodrigues, and Craig 2005). However, IAS/IFRS *de jure* convergence does not seem to be a possible predictor of VAS company *de facto* compliance because there is no reasonable evidence derived for this relationship. The next section further explores the effect of the combination of VAS-IAS/IFRS *de jure* convergence and VAS *de facto* company compliance on IAS/IFRS *de facto* company convergence (compliance) in Vietnam.

7.3 Multiple Regressions

Multiple regressions are used to explore the effects of VAS-IAS/IFRS *de jure* convergence and VAS *de facto* company compliance on IAS/IFRS *de facto* company convergence (compliance) in Vietnam. In doing so, IAS/IFRS *de facto* company convergence (compliance) is considered as a dependent variable while VAS-IAS/IFRS *de jure* convergence and VAS *de facto* company compliance are tested as possible independent predictor variables in multiple regression models which are built separately for the overall level as well as measurement and disclosure elements. The scores of *de jure* convergence between VAS and current IAS/IFRS, VAS *de facto* compliance indices and IAS/IFRS *de facto* compliance indices for individual standards calculated in Chapters 5 and 6 are the measures of the corresponding variables. The multiple regression models presented in Table 7.5 are considered to be valid and reliable because the fundamental assumptions for the use of multiple regressions are satisfied, and

outliers are not a concern for the regression models. These assumption issues are discussed in Appendix N.

The multiple regression model 1 (see Table 7.5, Panel A) shows that IAS/IFRS overall *de facto* company convergence are significantly and positively associated with overall *de jure* convergence (p=.012) and VAS overall *de facto* compliance (p=.000). Overall *de jure* convergence of VAS and IAS/IFRS is significantly linked to overall *de facto* company convergence with IAS/IFRS in Vietnam. There is also a significant relationship between VAS and IAS/IFRS overall *de facto* compliance. If a Vietnamese listed company has strong compliance with VAS rules, it also has high compliance with IAS/IFRS rules.

Model 2 (see Table 7.5, Panel B) reveals VAS measurement *de facto* compliance is a significant positive predictor (p=.000), yet measurement *de jure* convergence is only a moderately significant positive predictor (p=.078) of IAS/IFRS measurement *de facto* convergence in Vietnam. This means that in terms of measurement issues, the strongest predictor of IAS/IFRS *de facto* convergence is VAS *de facto* compliance. In addition, *de jure* convergence between the two sets of rules also has an influencing role.

Model 3 (see Table 7.5, Panel C) shows VAS disclosure *de facto* compliance is the only significant predictor of IAS/IFRS disclosure *de facto* convergence (p=.000). If a Vietnamese listed company well complies with VAS disclosure rules, it also well complies with the equivalent IAS/IFRS disclosure rules. Yet *de jure* convergence between the two sets of rules is not an influencing factor for disclosure issues.

Table 7.5 Multiple Regression Models: *De jure* Convergence and *De facto* Compliance

Panel A: Model 1						
Dependent variable: IAS/IFRS overall *de facto* convergence						
N	22 (standards)					
F value	62.232					
Significant	.000					
Adjusted R^2	.854					
Durbin-Watson	2.697					
	B	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
Constant	-.194		-2.213	.039		
Overall *de jure* convergence	.251	.232	2.776	.012**	.996	1.004
VAS overall *de facto* compliance	.938	.887	10.608	.000***	.996	1.004
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	.008		7.781	1.909		2.158
Cook's distance	.000		.833	.095		.214
Panel B: Model 2						
Dependent variable: IAS/IFRS measurement *de facto* convergence						
N	20 (standards)					
F value	64.376					
Significant	.000					
Adjusted R^2	.870					
Durbin-Watson	.868					
	B	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
Constant	-.194		-1.945	.069		
Measurement *de jure* convergence	.092	.156	1.875	.078*	.996	1.004
VAS measurement *de facto* compliance	1.102	.937	11.288	.000***	.996	1.004
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	.290		10.992	1.900		2.392
Cook's distance	.000		1.309	.128		.301
Panel C: Model 3						
Dependent variable: IAS/IFRS disclosure *de facto* convergence						
N	22 (standards)					
F value	16.734					
Significant	.000					
Adjusted R^2	.600					
Durbin-Watson	2.459					
	B	**Beta**	**t**	**Sig.**	**Tolerance**	**VIF**
Constant	-.102		-.700	.492		
Disclosure *de jure* convergence	.196	.179	1.279	.216	.972	1.029
VAS disclosure *de facto* compliance	.816	.809	5.777	.000***	.972	1.029
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	.003		6.176	1.909		1.515
Cook's distance	.000		.529	.054		.114

*Moderately significant (p<.10); **Significant (p<.05); ***Highly significant (p<.01).

The regression findings thus suggest that *de facto* company compliance with VAS is an important factor affecting *de facto* convergence (compliance) with IAS/IFRS in Vietnam. Yet, *de jure* convergence between VAS and IAS/IFRS also has an influencing role, except for disclosure issues. These data-derived conclusions are aligned with the evidence from China (Chen, Sun, and Wang 2002) and the Gulf Co-operation Council member states (Al-Shammari, Brown, and Tarca 2008) showing the *de jure* harmonisation with IAS is not sufficient in itself to ensure harmonisation of accounting practices. The authors argue this may be due to a lack of supporting infrastructure, inefficient enforcement and low quality auditing. Similiar problems also exist in the Vietnamese context as presented in Sub-section 2.2.2. The key implication is that weak mechanisms (e.g. enforcement, auditing and corporate governance) for complying with accounting standards is one of the major reasons posited for low *de facto* company convergence with IAS/IFRS (67%) in Vietnam, especially for the disclosure element (62%).

7.4 Summary

This chapter investigates the linkage between VAS-IAS/IFRS *de jure* convergence and *de facto* company compliance with accounting standards in Vietnam. The Pearson correlations and multiple regression results consistently show a significant positive relationship between VAS *de facto* company compliance and IAS/IFRS *de facto* company convergence at all levels (overall, measurement and disclosure). In addition, the multiple regression results reveal positive relationships between *de jure* and *de facto* convergence with IAS/IFRS in Vietnam. The relationship is significant at the overall level, yet is only moderately significant for measurement issues and is not significant for disclosure issues. This is because the differences between VAS-IAS/IFRS *de jure* convergence and IAS/IFRS *de facto* compliance show a variety of patterns among standards. This chapter's findings provide more evidence that *de jure* convergence is a primary factor leading to *de facto* convergence (Van der Tas 1988; Rahman, Perera, and Ganeshanandam 1996; Garrido, León, and Zorio 2002). However, *de facto* actual company compliance with accounting standards is as important as the standards

themselves (Hodgdon et al. 2008); and IAS/IFRS *de facto* convergence needs to be related to how strong and in what way the standards are enforced (Brown and Tarca 2005; Chua and Taylor 2008; Shima and Gordon 2011).

The key implication is that enhancement of mechanisms for Vietnamese companies' financial report compliance with accounting standards is as important as improvement of *de jure* convergence with IAS/IFRS in Vietnam. Both elements are crucially important to achieve *de facto* convergence with IAS/IFRS in Vietnam.

This thesis's results highlight many important implications for the Vietnamese government, investors in Vietnam's stock exchanges and the IASB, which are discussed in Chapter 8.

Chapter 8 Conclusions

8.0 Introduction

The earlier chapters analyse *de jure* convergence of Vietnamese (VAS) and international accounting standards (IAS/IFRS), *de facto* company compliance and linkages between *de jure* convergence and *de facto* compliance. This chapter summarises the key findings presented in Section 8.1 with implications offered in Section 8.2. The thesis's limitations and future research suggestions are respectively noted in Sections 8.3 and 8.4, followed by concluding remarks in Section 8.5.

8.1 Summary of Key Findings

This thesis seeks to answer five research questions:

1) What is the level of 'overall', 'measurement' and 'disclosure' *de jure* convergence of VAS and IAS/IFRS?
2) What is the level of 'overall', 'measurement' and 'disclosure' *de facto* compliance with VAS by Vietnamese listed companies' annual financial reports?
3) What is the level of 'overall', 'measurement' and 'disclosure' *de facto* compliance with IAS/IFRS by Vietnamese listed companies' annual financial reports?
4) What factors help explain the levels of *de facto* company compliance in Vietnam?
5) Is *de jure* convergence related to *de facto* company compliance in Vietnam?

De jure convergence results (Table 5.1, Section 5.1) show that during the period 2001-2005, Vietnam overall adopted 84% of their equivalent (old) IAS/IFRSs issued up to 2003. Then Vietnamese accounting standard setting went into stasis. Numerous recent amendments were made to IASs as new IFRSs replaced equivalent IASs to improve the global acceptance of IAS/IFRS. Yet, in Vietnam, the VASs have not been updated since 2005 and therefore the level of convergence of VAS and IAS/IFRS fundamentally decreases to a modest 62% convergence with (current) IAS/IFRS as at the end of 2010. Very low convergence is highlighted for the standards 'Business Combinations',

'Related Party Disclosures', 'Consolidated and Separate Financial Statements' and 'Segment Reporting/Operating Segment' and 'Investment in Associates'.

Splitting into measurement (Table 5.3, Section 5.2) and disclosure (Table 5.4, Section 5.3) elements, measurement *de jure* convergence is always significantly higher than disclosure *de jure* convergence. The levels of *de jure* convergence with old IAS/IFRS are 88% for measurement and 81% for disclosure; these scores fall significantly to 75% and 55% respectively when comparing with current IAS/IFRS. Many key non-current assets related standards have modest or low measurement *de jure* convergence with current IAS/IFRS.

A major difference in the measurement of non-current assets between VAS and IAS/IFRS is the measurement base. IAS/IFRS is open to an entity choosing either historical cost or fair-value to measure non-current assets while VAS uses historical cost as a dominant measurement base. Measurement *de jure* non-convergence (a reasonable measure for *de jure* non-convergence would be less than 50% *de jure* convergence) with current IAS/IFRS is even more noticeable for consolidation, investments in associates, business combinations and cash flows. Disclosure *de jure* non-convergence with current IAS/IFRS is highlighted for presentation of financial statements, leases, the effects of changes in foreign exchange rates, related parties, interests in joint ventures, operating segments, consolidated financial statements and investments in associates.

'Full convergence', 'partial convergence' and 'non-convergence' scores (Table 5.1, Section 5.1) reflect the fact that VAS highly adopts old IAS/IFRS with 81% 'full convergence', 4% 'partial convergence' and 15% 'non-convergence'. This variation suggests that Vietnam's approach is simply selecting IAS/IFRS issues suitable to Vietnam's context with few modifications. However, Vietnam's inaction towards more recent IAS amendments and new IFRS leads to dramatic decrease in 'full convergence' to 59% and concurrent increase in 'non-convergence' to 35%. Vietnam's convergence approach is thus unusual and different from China's approach, an emerging market similar to Vietnam. China uses the combination of progressive change and 'direct

import' approaches which is arguably practical and effective in improving the level of convergence of Chinese accounting standards with IFRS from 20% in 1992 to 77% in 2006 (Peng and van der Laan Smith 2010)[30].

De facto compliance results show the extent of compliance with VAS is significantly higher than with IAS/IFRS by Vietnamese listed companies, 80% and 67% respectively (Table 6.2, Section 6.2). The level of compliance with IAS/IFRS by Vietnamese listed companies is lower than the corresponding figures noted in prior compliance research. For instance, past studies noted 91% compliance by the six Asia-Pacific countries of Thailand, Singapore, Malaysia, Hong Kong, the Philippines and Australia in 1997 (Tower, Hancock, and Taplin 1999), and 82% compliance by the six Gulf countries of Bahrain, Oman, Kuwait, Qatar, Saudi Arabia and the United Arab Emirates in 2002 (Al-Shammari, Brown, and Tarca 2008). Measurement *de facto* compliance is significantly higher than disclosure *de facto* compliance, 87% and 78% respectively for VAS, and 82% and 62% respectively for IAS/IFRS. This finding is also consistent with prior research's results (Taplin, Tower, and Hancock 2002; Street and Gray 2002; Al-Shammari, Brown, and Tarca 2008).

Major measurement *de facto* non-compliance is related to estimation issues such as depreciation, impairment losses and provisions. This is because Vietnamese companies are used to receiving detailed accounting guides formulated in the uniform accounting system (UAS) and therefore they are less familiar with accounting issues that allow for discretion and require a higher degree of professional judgment (Nguyen and Richard 2011).

Disclosure *de facto* non-compliance is an even more serious problem for Vietnamese listed companies. A reasonable measure for non-compliance would be less than a 50% compliance benchmark given that at this point there is more non-compliance than compliance. Disclosure *de facto* non-compliance with both VAS and IAS/IFRS is highlighted for construction contracts, leases, business combination, provisions, events

[30]Peng and van der Laan Smith (2010) focus solely on the measurement perspective.

after the reporting period and segment reporting/operating segment (see Table 6.3, Section 6.2). In addition, disclosure *de facto* non-compliance with IAS/IFRS is also noticeable for interests in joint ventures, borrowing costs, investments in associates and related party disclosures. These findings highlight the accounting issues the Vietnamese accounting regulators should prioritise and also identify obstacles towards implementing these accounting issues in Vietnam.

There are only a modest number of VAS and IAS/IFRS items applicable to the companies (266 out of 832 VAS checklist items, and 281 out of 1085 IAS/IFRS checklist items, see Table 6.1, Section 6.1). The large number of non-applicable items reflects that numerous issues formulated in both VAS and IAS/IFRS are not always relevant to Vietnamese listed companies. This raises a major question about the complete suitability of IAS/IFRS and even VAS to Vietnam's business context.

The findings of determinants of *de facto* company compliance (Section 6.3.2) support the stated hypotheses regarding the effects of company size and state ownership on *de facto* company compliance for the measurement perspective only. Company size (total assets) is a significant positive predictor of measurement *de facto* company compliance for IAS/IFRS in the main analysis. State ownership is a significant negative predictor of measurement *de facto* company compliance for VAS in both the main and sensitivity analyses. Nevertheless, state ownership is shown as a significant negative predictor of measurement *de facto* company compliance for IAS/IFRS only in the sensitivity analysis where state ownership is measured as a dichotomous variable with the benchmark of 20%. Yet company size and state ownership are not significant predictors of *de facto* company compliance for overall and disclosure levels in Vietnam.

The finding of a significant positive relationship between company size and IAS/IFRS measurement *de facto* company compliance in Vietnam suggests that larger Vietnamese companies are more willing to adopt IAS/IFRS measurement rules. This is consistent with Tarca's (2004) result based on a sample of companies from the United Kingdom, France, Germany, Japan and Australia in 1999-2000. An explanation is that larger

companies have more resources and more established reporting systems to better adopt sophisticated IAS/IFRS measurement rules (Al-Shammari, Brown, and Tarca 2008).

However, the finding of a non-significant relationship between company size and VAS *de facto* company compliance is not aligned with the agency theory/political cost theory positing that larger companies are more likely to attract political attention and therefore they have more incentives to comply with accounting regulations to avoid government intervention, that is, political costs (Watts and Zimmerman 1990). This suggests thatin Vietnam, the main influence (the government) may be less concerned about a large/small company dichotomy. Instead, the actual level of state ownership seems to be the influencing factor.

The finding of a significant negative relationship between state ownership and *de facto* company compliance with VAS measurement rules provides more evidence about agency conflict of interest between the controlling insiders and outside investors (Lemmon and Lins 2003). Accordingly, in Vietnamese listed companies with higher state ownership concentration, controlling insiders who represent state ownership is less likely to act in the interest of the outside shareholders. The controlling insiders may manipulate accounting measurement techniques to maximise their own pecuniary interest.

Stock exchange location, used as a control variable in this thesis, is a major determinant of *de facto* compliance with both VAS and IAS/IFRS at the overall and disclosure levels (Section 6.3.2). The companies listed on the Ho Chi Minh Stock Exchange have overall significantly higher compliance with accounting standards, especially for disclosure requirements, than the companies listed on the Ha Noi Stock Exchange. This finding reflects that weak regulation enforcement in Vietnam is particularly more noticeable in the Ha Noi Stock Exchange.

Audit firm type, another control variable, is also an important factor affecting *de facto* company compliance with accounting standards in Vietnam (Section 6.3.2). As

expected, big-four related companies have significantly higher *de facto* compliance with VAS measurement rules. Yet, the non-big-four related companies have significantly higher *de facto* compliance with disclosure rules for both VAS and IAS/IFRS. This finding is inconsistent with prior studies where the level of disclosure *de facto* compliance was positively associated with big5 or big5+2 auditors (Street and Gray 2002; Glaum and Street 2003; Hodgdon et al. 2009). This interesting finding suggests that big audit firms have a different (or more nascent) type of influence on accounting compliance in Vietnam than in other countries.

The other control variables have some statistical effects on *de facto* compliance with accounting standards in Vietnam. However, their influence is quite different between the main and sensitivity analyses and between VAS and IAS/IFRS rules. The main analysis (Tables 6.9 and 6.10, Section 6.3.2.2) shows leverage (total liabilities/total assets) is a significant negative predictor of VAS overall *de facto* compliance by Vietnamese listed companies. This finding is inconsistent with the evidence from the Gulf Co-operation Council member states in terms of the relationship direction (Al-Shammari, Brown, and Tarca 2008), but is aligned with the debt covenant hypothesis positing that the closer a firm is to violation of accounting-based debt covenants, the more likely it is to select accounting procedures to avoid covenant constraint (Deegan 2009). Regarding IAS/IFRS *de facto* company compliance, foreign ownership and business complexity (number of applicable IAS/IFRS items) are significant positive predictors of IAS/IFRS overall *de facto* compliance by Vietnamese listed companies. The finding of a significant positive relationship between the level of foreign ownership and overall *de facto* compliance with IAS/IFRS is aligned with the evidence from the Gulf Co-operation Council member states (Al-Shammari, Brown, and Tarca 2008). In addition, ROA is a significant negative predictor of IAS/IFRS measurement *de facto* compliance. Using the perspective of political cost, managers are likely to select accounting practices that lead to a reduction in reported profit because high profit may draw adverse and costly attention to the firm (Watts and Zimmerman 1978, 1986). Accordingly, more profitable companies in Vietnam have less incentive to adopt IAS/IFRS emphasising

'faithful presentation' rather than 'conservatism' or 'prudence' (Henry and Holzmann 2010).

The sensitivity analysis (Tables 6.13 and 6.14, Section 6.3.2.3) shows leverage (re-measured as the ratio of long-term liabilities to total assets) is a significant positive predictor of VAS measurement *de facto* compliance. This finding is inconsistent with the debt covenant hypothesis as noted above. One explanation is that Vietnamese listed companies with a higher level of long-term liabilities have fewer possibilities to obtain more funds and therefore they are incentivised to improve the quality of measurement in their financial reports to reassure potential creditors that their interests are well protected. For IAS/IFRS, business complexity (with or without subsidiaries) is a significant positive predictor of measurement *de facto* compliance. This finding along with the finding of significant positive relationship between business complexity and IAS/IFRS overall *de facto* compliance in the main analysis reflects that Vietnamese companies with more complex business activities have more established reporting systems to better comply with sophisticated IAS/IFRS rules.

The analysis of the linkage between *de jure* convergence and *de facto* compliance in Vietnam shows a significant positive relationship between VAS *de facto* compliance and IAS/IFRS *de facto* compliance by Vietnamese listed companies for the overall level as well as measurement and disclosure (Sections 7.2 and 7.3). Yet, the positive relationship between VAS-IAS/IFRS *de jure* convergence and IAS/IFRS *de facto* company compliance is significant for the overall level and is moderately significant for measurement, but is not statistically significant for disclosure. This is because the differences between VAS-IAS/IFRS *de jure* convergence and IAS/IFRS *de facto* company compliance are found in a variety of patterns (Section 7.1). These findings provide support for the view that *de jure* convergence is a primary factor leading to *de facto* convergence (Van der Tas 1988; Rahman, Perera, and Ganeshanandam 1996; Garrido, León, and Zorio 2002). However, the goal of IFRS convergence needs to be related to how strong and in what way the standards are enforced (Brown and Tarca 2005; Chua and Taylor 2008; Shima and Gordon 2011).

8.2 Implications

This thesis's findings are likely to be of interest to the Vietnamese government, investors and the IASB. Each stakeholder group is addressed below.

The finding of decreasing *de jure* convergence between VAS and IAS/IFRS suggests that Vietnam's convergence progress is unusual and incomplete. This is because previous attempts at convergence with IAS/IFRS in Vietnam were mostly driven by external pressures rather than internal incentives. Vietnam's attempts to converge with IAS/IFRS during the period 2001-2005 was created by intense pressure to be accepted as a World Trade Organisation (WTO) member (Nguyen and Richard 2011; Nguyen and Tran 2012). An important point is that the convergence program has stopped after Vietnam became a WTO member. This implies that IAS/IFRS adoption in Vietnam during the period 2001-2005 with a high overall level of 84% was about adopting the 'form', but not necessarily the 'substance' of IAS/IFRS. This problem also exists in many European countries where the IFRS adoption seems to be adopting a label, rather than the spirit of the comprehensive set of standards (Street and Linthicum 2007). Moreover, the Vietnamese government does not have on-going clear incentives to continue the convergence program because the IFRS accounting model which primarily addresses the needs of a broad group of stakeholders is deemed not suitable to the Vietnamese accounting system which continues to emphasise the needs of the state (Nguyen 2010). The above points imply that Vietnam's convergence with IAS/IFRS is politically motivated. If Vietnam maintains the course of inaction towards more recent IAS/IFRS amendments, the divergence between VAS and IAS/IFRS, of course, will grow; and Vietnam will not achieve their stated goal of 90% convergence with IAS/IFRS in the near term.

The finding that numerous issues formulated in the VAS are not relevant to Vietnamese listed companies implies a lack of business practicality of VAS. This reflects the inappropriateness of Vietnam's approach to convergence with IAS/IFRS as discussed above. Mr Dang in the DTCK (2010) interview posits that unlike other countries, VAS are issued by the Ministry of Finance (MOF) instead of the professional Vietnamese

Accounting Association (VAA) body, resulting in a lack of direct accounting based practicality of the VAS rules. This represents a direct obstacle for Vietnamese companies appropriately applying accounting standards. Another explanation for the lack of relevance to Vietnam's context of VAS is that the process of composing VAS was financially supported by the World Bank (Narayan and Godden 2000) which is one of the key agencies financing the diffusion of globalisation practices (Neu et al. 2002). It has been argued that international donor agencies attempted to impose IAS on developing countries rather than assisting these countries in proper accounting reforms (Mir and Rahaman 2005).

The moderate level of overall *de facto* compliance with VAS by Vietnamese listed companies indicates weak mechanisms (e.g. enforcement, auditing and corporate governance) for implementing accounting standards in Vietnam. In an interview conducted by DTCK[31] (2010), Mr Dang, vice president of the Vietnamese Accounting Association (VAA) argues that legal enforcement of VAS is not strong enough to push reporting companies to comply with the VAS. It is thought that the preservation of the uniform accounting system (UAS), a feature of Vietnamese accounting tradition (Nguyen and Richard 2011), weakens the legal status of accounting standards in Vietnam. In addition, the equitization process in Vietnam has not been completely successful in restructuring the state owned enterprises as the state remains a large shareholder and old management teams continue to remain in charge in most equitized firms (Sjoholm 2006). This implies that the UAS will not be removed in the short term because it enables the government and related agencies to control and supervise the firms with state ownership (Yang and Nguyen 2003). Thus, the coexistence of the UAS and the VAS reflects political influence on the implementation of accounting standards in Vietnam (Nguyen and Richard 2011; Nguyen and Tran 2012). This is consistent with the view that accounting quality is influenced by the country's legal and political system (Ball 2006; Soderstrom and Sun 2007). The noted moderate compliance with VAS by Vietnamese listed companies also raises a doubt about audit quality in Vietnam. Specifically, this thesis's findings suggest that the big-four audit firms do not necessarily

[31] A website about security investment in Vietnam.

have a positive influence on accounting transparency in Vietnam supporting past research which questions the quality of audits in Vietnam.

The modest level of *de jure* convergence of VAS and IAS/IFRS and the moderate level of *de facto* compliance with VAS lead to the more modest *de facto* compliance with IAS/IFRS in Vietnam. This finding provides some support for the conclusion that national regulators and standard setters play the key role in promoting the convergence process (Tarca 2004). In the context of many other countries having fully adopted IAS/IFRS rules, low convergence with IAS/IFRS is an obstacle for Vietnam in attracting higher levels of foreign investment. Therefore, improving *de jure* convergence with IAS/IFRS and *de facto* company compliance with accounting standards is crucially important for Vietnam to achieve their stated convergence target of 90%, and therefore supporting increased foreign capital flowing into Vietnam.

This thesis's findings thus advance potential public policy reforms for Vietnam to achieve higher *de facto* compliance with VAS and convergence with IAS/IFRS:

- First, to improve the business practicality of VAS the Vietnamese Accounting Association should have a more active role in the process of composing and revising accounting standards (Doan 2008), as a stronger and more developed accounting profession is more likely to be associated with the development of more sophisticated and relevant accounting standards (Ding et al. 2007).

- Second, there is a need to enhance *de jure* convergence between VAS and IAS/IFRS as *de jure* convergence is an instrument of achieving *de facto* convergence (compliance) (Van der Tas 1988; Rahman, Perera, and Ganeshanandam 1996; Garrido, León, and Zorio 2002). Vietnamese accounting standard setters should restart the IFRS convergence program which stalled after 2005. Vietnam is characterised by its code-law tradition, credit-insider financing system, concentrated state ownership with related poor shareholder protection, the tax-driven nature of the Vietnamese accounting system and a weak accounting profession (Phan 2009; Nguyen and Richard 2011; Nguyen, Hooper, and Sinclair 2012). These characteristics are unfavourable for converging with the IASB's sophisticated standards as well documented in the literature (Fontes, Rodrigues,

and Craig 2005; Ding et al. 2007; Karampinis and Hevas 2011). Therefore, a gradual convergence with IFRS may be more suitable for Vietnam (Aly and Nguyen 2010). In addition, a transition period and proper IFRS training for accountants, auditors, management and investors may be needed (Abdelsalam and Weetman 2007; Rezaee, Smith, and Szendi 2010). China's approach may well need to be considered by the Vietnamese accounting regulators as the combination of progressive change and 'direct import' approaches is successfully moving Chinese accounting from a central government planning model to a market-based model (Peng and van der Laan Smith 2010).

- Third, there is a need to greatly improve mechanisms (e.g. enforcement procedures, auditing and corporate governance) for complying with accounting standards in Vietnam as *de facto* company compliance with VAS is strongly related to *de facto* company convergence with IAS/IFRS in Vietnam. Effective regulatory oversight will assist in successful implementation of accounting standards (Bradshaw and Miller 2008). The non-compliance firms noted in this thesis, for instance, companies with high state ownership concentration or high leverage, should be subject to greater scrutiny by accounting regulation enforcement bodies. Especially, regulatory oversightin the Ha Noi Stock Exchange needs significant improvement. In order to enhance the implementation of accounting standards and encourage professional judgment, the UAS should be removed from the Vietnamese accounting regulations because the preservation of UAS is deemed a contradiction to the desire of convergence of IAS/IFRS (Nguyen and Richard 2010; Nguyen and Tran 2012).

- Finally, perhaps the Vietnamese government needs to reconsider its equitization approach and reduce the levels of state ownership in Vietnamese listed companies. Privatisation to outsiders (strategic investors) instead of insiders (management and employees) would enable a proper restructuring of state ownership firms (Djankov and Murrell 2002). This may better motivate the equitized firms to increase compliance with accounting standards, creating a more favourable environment for converging with IFRS in Vietnam. It may also help to increase the interest of foreign investment in Vietnam.

The extent of *de facto* company compliance with accounting standards affects the quality of the company's financial reports and therefore influences investors' decision making. The empirical findings of factors affecting *de facto* compliance with accounting standards may drive investors' attention to particular types of companies with poor compliance with accounting standards, such as high state ownership companies or high leverage companies. Companies listed on the Ha Noi Stock Exchange are also less likely to communicate mandatory disclosures via their annual financial reports. The finding of a significant negative relationship between audit firm type and disclosure *de facto* compliance by Vietnamese listed companies possibly warns the investors that annual financial reports audited by big-four audit firms do not necessarily have a high level of compliance with accounting standards. Nevertheless, the investors should be aware that their demand on companies' financial information also affects companies' attitudes towards their financial statements. Nguyen (2009) notes that stakeholders in Vietnam's capital market do not have a habit of making decisions based on financial statements data. For instance, many investors in Vietnam may follow the 'crowd' to make investment decisions instead of carefully analysing financial statements (Phan 2009). Vietnamese companies thus may not have enough external incentives and pressure to improve the quality of their financial statements.

From a more global perspective, this thesis's findings may add to the debate of the complete suitability of IASB standards for developing countries (Perera and Baydoun 2007; Carmona and Trombetta 2008; Ding and Su 2008). The thesis's conclusion that numerous requirements formulated in IAS/IFRS are not applicable to many Vietnamese listed companies implies that IAS/IFRS relevance in developing countries' is questionable and in particular within the Vietnamese context. This thesis's results also highlight specific problems for Vietnam, such as business combinations, provisions, related party disclosures and operating segment. These complex topics are also noted for their lack of convergence in a worldwide survey of national accounting rules benchmarked against IAS 2001 (Nobes 2001). This implies the complicated nature of these accounting issues should be looked at carefully in the IASB's convergence program.

This study also notes that the historical cost approach is still the dominant measurement base in VAS while the fair value base is more prevalent in modern IASB standards (Barth 2007). Vietnam's economy, whilst shifting, is not completely a market economy and is still dominated by state ownership which is less enthused about the adoption of fair-value based measurement. This suggests that the IASB should reconsider the removal of the 'cost model' option for measuring assets. More time is needed for countries with less developed markets and valuation professions like Vietnam and other developing countries to mature.

The story of Vietnam, as a representative of developing countries, may be very useful for IASB in their process of improving global convergence of national accounting standards and IAS/IFRS. Perhaps, the IASB should deal with not only the European versus North American split as suggested by d'Arcy (2001) and Lewis and Salter (2006), but also place a strong focus on the separate group of developing countries, if the IASB is to truly achieve its aim of global convergence with IFRS.

8.3 Limitations

This study seeks to provide useful insights into *de jure* convergence of VAS and IAS/IFRS and *de facto* company compliance with VAS and IAS/IFRS in Vietnam via large scale data analysis; nevertheless, some limitations still exist.

In this thesis, *de jure* convergence of VAS and IAS/IFRS is scored based on a comprehensive approach with an important goal being to minimise subjectivity. However, certain logical assumptions are still needed in some specific circumstances as stated below:

- In the circumstance where IAS/IFRS specifies 'benchmark treatment' and 'allowed alternative treatment' for a measurement item while VAS allows only one measurement method, the item score is awarded a 0.75 score if VAS adopts the IAS/IFRS benchmark treatment, or 0.25 if VAS adopts the IAS/IFRS alternative treatment.

- In any circumstance where IAS/IFRS allows two equal options of accounting for an item while VAS adopts only one of the two IAS/IFRS options, the item score is given a 0.5 score.

- Where an item is required to be recognised as 'directly to equity' by VAS, but is to be recognised as 'other comprehensive income' under IAS/IFRS, the score is deemed to be a 0.75.

These above assumptions may not always reflect specific economic realities.

De facto company reporting analysis is based on comprehensive checklists of VAS and IAS/IFRS items. Logical reasoning is thus also employed to distinguish between 'non-compliance' and 'non-applicable' items. However, the discrimination between 'non-compliance' and 'non-applicable' may be subjective (Ali, Ahmed, and Henry 2004) because the collected data is limited to companies' annual financial reports. For instance, in a circumstance where a company does not communicate any information about events after a reporting period in its annual financial report, the related items are coded as 'non-applicable' for the company despite the possibility that significant events may occur after the reporting period.

The sample used to measure *de facto* compliance with VAS and IAS/IFRS in Vietnam is limited to Vietnamese listed companies because of data availability. It would also be interesting and even more insightful to include unlisted companies; and the effect of the listing status on the level of *de facto* compliance with accounting standards could be examined. However, such data is not publically available.

This thesis also examines a variety of factors with alternative measures potentially explaining *de facto* compliance, which are commonly tested in prior *de facto* compliance studies. Nevertheless, some potential explanatory factors or proxies are again not captured in this thesis as data are not available. For example, the proportion of share owned by directors may be another useful explanatory factor, but it is not explored in this study because this information cannot be publically accessed.

Despite the limitations, it is believed that this thesis's approach enables deep reflection about an actual rewarding story of accounting regulation and compliance in Vietnam. The findings are informative for the Vietnamese government, investors in the Vietnamese market and international accounting standard setters. Moreover, this thesis's limitations and findings open the door for a series of future research projects suggested in Section 8.4.

8.4 Future Research Suggestions

Future research may overcome some of the limitations acknowledged in Section 8.3. The *de facto* analysis could be expanded to cover Vietnamese unlisted companies. This would allow the exploration of the effect of listing status on *de facto* compliance with accounting standards. In addition, the possible associations of company size and other firm characteristics with *de facto* compliance could be more apparent in a sample including both listed and unlisted companies in Vietnam.

De facto compliance findings imply weak mechanisms for complying with accounting standards in Vietnam which could be addressed in future research. It would be useful if future research specifically investigates the effects of corporate governance and external audit on *de facto* compliance with accounting standards by Vietnamese companies. Such a study was recently conducted in the Chinese context by Gao and Kling (2012). Additionally, research about the unusual influence of the big-four audit firms on accounting compliance in Vietnam would be an interesting and important study area.

The finding of falling modest convergence of VAS and IAS/IFRS raises a question of the suitability of IAS/IFRS for business practices in Vietnam. Future research into the extent of suitability of IAS/IFRS for Vietnam would assist Vietnamese accounting regulators to address which IAS/IFRS issues can be fully adopted and which issues need modifications in their future convergence program. This research focus could also help the IASB to identify the issues they possibly need to reconsider to better converge national accounting standards of developing countries like Vietnam with the global

IFRS. Finally, future research could investigate major obstacles to adopting IFRS for Vietnamese companies. This may provide more useful advice regarding the preparations needed for IFRS adoption if Vietnam is to better integrate into the global economy.

8.5 Concluding Remarks

This comparative study of Vietnamese and International Accounting Standards provides insights into both *de jure* and *de facto* perspectives. This thesis's findings emphasise a lack of both *de jure* and *de facto* compliance with international accounting standards in Vietnam, leading to the conclusion that Vietnam's convergence with IAS/IFRS is incomplete. The key implication in this thesis is that IAS/IFRS is not highly accepted in a country with a code-law based system, high state ownership concentration, credit-insider financing system, tax-driven accounting sytem and weak accounting profession like Vietnam.

This study is important to the Vietnamese government, a wide variety of stakeholders and the IASB. The major implication for the Vietnamese government is that improvement of Vietnam's institutional environment favourable for convergence with IAS/IFRS and better mechanisms for complying with accounting standards is the key to achieve their stated convergence target of 90%. This supports their stated government policy to grow foreign investment in Vietnam.

The findings from this thesis can signal to investors in the Vietnamese market that Vietnamese listed companies' financial reports are not yet transparent enough, possibly affecting investors' decision making. Therefore, the Vietnamese regulators may need to take a more active role in their goal of attracting more international investment.

From a more global perspective, the study of Vietnamese accounting is important because Vietnam is a fast developing economy, and its importance to the world economy is growing. This Vietnamese story provides further insights as to the complete relevance of IASB accounting standards to developing countries, and potentially what

elements might need to change. The implication is that the IASB should reconsider its approach for emerging markets like Vietnam for further IFRS improvement, if the IASB is to truly achieve its global convergence aim.

Finally, this thesis contributes to the literature a little known story of Vietnamese accounting and a comprehensive approach to quantifying *de jure* convergence of two sets of accounting standards and *de facto* company financial reporting compliance.

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Appendices

Appendix A Economic Reforms in Vietnam

This appendix describes the process of economic reform influencing accounting development in Vietnam which is discussed in Section 2.2 (Chapter 2).

During the first eleven years after its unification (1975), the Vietnamese economy was characterised by central planning with collectivised agriculture and subsidised state industries (Dollar and Litvack 1998). The economy was almost completely closed to the outside world as its international economic relations were limited (by a U.S. influenced embargo) to the Eastern bloc countries such as the Soviet Union (Vietnam—Overview of Economy 2010). In the centrally planned economy, national economic activities were planned strictly in terms of what, how and for whom to produce and where to source inputs and market outputs (Vu 2008). The public sector played a leading role in the Vietnamese economy. Under the planned system, Vietnamese state-ownership enterprises' (SOEs) finance and operation policies were decided by the government via the state plan rather than by the enterprises themselves' (Vu 2008). The relationship between performance and reward was ignored in Vietnamese SOEs (Nguyen 2003). As a result, Vietnamese SOEs in the centrally planned economy were characterisedby "bureaucratic, static and internally focused cultures" (Nguyen 2003, 426).

Hyperinflation and economic stagnation in the mid-1980s were the impetus for the economic reform *Doi Moi* (renovation) launched in Vietnam (Dollar and Litvack 1998). This strategy decided by Sixth National Congress of the Communist Party of Vietnam in 1986 was a gradual transition from the centrally planned economy to a 'market economy with a socialist orientation'. The initial reforms during the 1980s-1990s involved macroeconomic policies such as price liberalisation, devaluation, trade liberalisation, interest rate increases, and land reforms in agriculture (Dollar 2002). Reforming the state sector has also been a major focus of the economic renovation in Vietnam (Nguyen 2003). SOEs were given the autonomy to formulate and implement their own operating plans regarding the socio-economic development guidelines of the government. The Vietnamese government approach to SOE reform is a combination of a renovation and preservation approach (World Bank 2012). Inefficient small and medium-size SOEs were dissolved or merged with one another, whereas large SOEs in the core state economic sector were preserved (Vu 2002). The SOE sector was further reorganised by merging SOEs in strategic industries into general corporations to enhance the competiveness ability of the SOE sector (Vu 2002). The SOE reform in Vietnam also included equitization (movement away from full state ownership) initiated in 1992 (Painter 2003). The equitization process is primarily a way to generate capital for the firm and to reduce the burden on the state budget (Painter 2005). The equitization process in Vietnam was started with smaller and easier SOEs and moving toward larger and more difficult SOEs with the goal of improving their performance (Sjoholm 2006). The SOEs were mostly equitizing to employees and management with little participation of strategic investors (Sjoholm 2006). Yet, the equitization process in Vietnam during

the 1992-2000 period was slow due to the opposition to the equitization process by certain interest groups (Sjoholm 2006) and the contradictions contained within the official political rhetoric (Hakkala and Kokko 2007).

During the 1990s, Vietnam opened its economy to the global market. Specifically, the U.S. trade embargo was lifted in 1994. After that, Vietnam joined the Association of Southeast Asian Nations Free Trade Area in 1995, and then the Asia-Pacific Economic Cooperation forum. In 1998, two trading security centres were set up in Vietnam, one in Ha Noi City[32] and the other in Ho Chi Minh City[33] (Decision No 127/1998/QĐ-TTg), mobilising domestic and foreign financial resources. As a result of the initial economic reforms in the 1990s, Vietnam received considerable inflows of foreign capital (Jenkins 2006); and became one of the fastest growing economies in the world (Dollar 2002). However, the level of institutions and policies in Vietnam was poor compared to other emerging market economies, causing a slowdown in foreign investment into Vietnam (Dollar 2002). In addition, Leung (2009) argues that Vietnam's trade and investment regime throughout the 1990s was overly favourable to the state sectors; this may be an obstacle for continued growth of the Vietnamese economy. Therefore, more comprehensive economic reforms would be needed for Vietnam to keep up with other competitive economies in its region (Dollar 2002).

Vietnam's economic reform entered a new phase in the 2000s. Many policy reforms were derived to unleash the domestic private sector and address the shortcomings of the trade and investment regime (Leung 2009). Specifically, the Enterprises Law in 2000 created more favourable conditions for the establishment and operation of private businesses (World Bank 2007). Then, the Enterprises Law was replaced by the Company Law in 2005 establishing a uniform legal framework for different legal forms of enterprises, forcing all SOEs to convert into the same corporate governance models as private ownership enterprises by 2008 (World Bank 2007). Additionally, the implementation of the Security Law in 2007 together with the improvement of the Investment Law in 2005 provides a better legal framework for the supervision of the equities markets (Leung 2009).

After a slow start, the process of Vietnamese SOEs' equitization gained speed in 2003. Larger SOEs were equitized and their shares were sold through public auction (World Bank 2007). This caused an increase in the percentage of capital sold to outsiders (non-employees); however, this percentage is still modest. By 2004, the percentages of charter capital of equitized SOEs held by the state, employees and outside shareholders were 46%, 30% and 24% respectively (World Bank 2007). The number of SOEs rapidly declined between 2002-2005, and then more slowly between 2006-2008. By 2009, the share of SOEs in charter capital in the enterprise sector was 39%, but it is likely to increase during the period of 2009-2011 because many new SOEs have been established

[32]On May 11 2007 the Decision No. 599/QD-TTg was signed to transform the Ho Chi Minh Securities Trading Centre to Ho Chi Minh Stock Exchange.
[33]On January 02 2009 the Decision No. 01/2009/QĐ-TTg was signed to transform Hanoi Securities Trading Centre to Hanoi Stock Exchange.

(World Bank 2012). Especially, during the period of 2005-2010, the Vietnamese government established five pilot State Economic Groups in strategic sectors with privileged access and autonomy to improve Vietnam's competiveness in an increasingly globalised world (World Bank 2012). This implies that state ownership is still a dominant feature in the Vietnamese economy.

The policy and SOEs' reforms up to the mid-2000s in Vietnam were part of the government's efforts to prepare for the accession to the World Trade Organisation (WTO). Joining the WTO in 2007 was a milestone for Vietnam in achieving their goal of integration into the world economy. This greater global integration is a driver of Vietnam's transition into a market economy; at the same time, it raises many challenges for Vietnam (World Bank 2007). This requires Vietnam continuing institutional and SOEs' reforms to implement the WTO commitments.

In summary, after 25 years of *Doi Moi*, Vietnam's economy has been considerably improved from a low-income to a middle-income economy. Between 1990-2010, Vietnam's economy has grown at an annual average rate of 7.3% and became one of the fastest growing countries in the world (World Bank 2012). Despite some achievements in the SOEs' reform, the state sector is still relatively large and inefficient (World Bank 2012). This may be because Vietnam aspires to a market economy with a socialist orientation. The socialist ideology makes it difficult for SOEs to change their traditional model of management towards innovative and entrepreneurial approaches required by a market oriented economy (Nguyen 2003). Consequently, most equitized SOEs continue with their old inefficient management (Sjoholm 2006; Hakkala and Kokko 2007, World Bank 2007). The unfair competition between private and state sectors which is manifested in problems with market access, financing, and access to land is also an obstacle to Vietnam's movement towards a market-oriented economy (Hakkala and Kokko 2007). Due to the weakness of the state sector, restructuring SOEs is a top priority in the next Socio-Economic Development plan of the Vietnamese government, spanning 2011-2015, as emphasised in one of the National Assembly's resolutions (World Bank 2012).

Appendix B Borrowing Costs—An Example of *De jure* Convergence Scoring

This appendix illustrates the scoring process of *de jure* convergence as explained in Section 4.1 using the standard 'Borrowing Costs' as an example.

Measurement	**VAS 16** Issued in Dec 2002 Effective in Jan 2003	**Old IAS 23** Revised in Dec 1993 Effective in Jan 1995	**Current IAS 23** Amended in May 2008 Effective in Jan 2009	**Convergence Score** **VAS 16 vs Old IAS 23**	**Convergence Score** **VAS 16 vs Current IAS 23**
1. Recognition	- Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset shall be capitalized as part of the cost of that asset[(1)]. - Other borrowing costs shall be recognised as an expense in the period in which they are incurred[(2)]. [para. 6 & 7]	**Benchmark treatment**: - Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying assetshall be recognised as an expense in the period in which they are incurred[(1a)]. - Other borrowing costs shall be recognised as an expense in the period in which they are incurred[(2a)]. [para. 7] **Allowed alternative treatment**: - Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset shall be capitalised as part of the cost of that asset[(1b)] . - Other borrowing costs shall be recognised as an expense in the period in which they are incurred[(2b)]. [para. 10 & 11]	- An entity shall capitalise borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset[(1)]. - An entity shall recognise other borrowing costs as an expense in the period in which it incurs them[(2)]. [para. 8]	(1) 0.25 (2) 1 **Total: 1.25/2** **FC**:1 item **PC**:1 item **NC**: 0 item	(1) 1 (2) 1 **Total: 2/2** **FC**:2 items **PC**:0 item **NC**:0 item
2. Borrowing cost eligible for capitalisation	- To the extent that funds are borrowed specifically for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalisation on that asset shall be determined as	- To the extent that funds are borrowed specifically for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalisation on that asset shall be determined as	- To the extent that an entity borrows funds specially for the purpose of obtaining a qualifying asset, the entity shall determine the amount of borrowing costs eligible for capitalisation as the actual	(1) 1 (2) 1 (3) 1 (4) 1 **Total: 4/4**	(1) 1 (2) 1 (3) 1 (4) 1 **Total: 4/4**

	the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings[(1)]. [para. 9 & 10] - To the extent that funds are borrowed generally and used for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalisation shall be determined by applying a capitalisation rate to the expenditures on that asset[(2)]. The capitalisation rate shall be the weighted average of the borrowing costs applicable to the borrowings of the entity that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset[(3)]. The amount of borrowing costs capitalised during a period shall not exceed the amount of borrowing costs incurred during that period[(4)]. [para. 11]	the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings[(1)]. [para. 15] - To the extent that funds are borrowed generally and used for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalisation shall be determined by applying a capitalisation rate to the expenditures on that asset[(2)]. The capitalisation rate shall be the weighted average of the borrowing costs applicable to the borrowings of the entity that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset[(3)]. The amount of borrowing costs capitalised during a period shall not exceed the amount of borrowing costs incurred during that period[(4)]. [para. 17]	borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings[(1)]. [para. 12] - To the extent that an entity borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the entity shall determine the amount of borrowing costs eligible for capitalisation by applying a capitalisation rate to the expenditures on that asset[(2)]. The capitalisation rate shall be the weighted average of the borrowing costs applicable to the borrowings of the entity that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset[(3)]. The amount of borrowing costs that an entity capitalises during a period shall not exceed the amount of borrowing costs it incurred during that period[(4)]. [para .14]	**FC**:4 items **PC**:0 item **NC**: 0 item	**FC**:4 items **PC**:0 item **NC**: 0 item
3. Commencement of capitalisation	The capitalisation of borrowing costs as part of the cost of a qualifying asset shall commence when: (a) expenditures for the asset are being incurred[(1a)]; (b) borrowing costs are being incurred[(1b)]; and (c) activities that are necessary to prepare the asset for its intended	The capitalisation of borrowing costs as part of the cost of a qualifying asset shall commence when: (a) expenditures for the asset are being incurred[(1a)]; (b) borrowing costs are being incurred[(1b)]; and (c) activities that are necessary to prepare the asset for its intended	The commencement date for capitalisation is the date when the entity first meets all of the following conditions: (a) It incurs expenditures for the asset[(1a)]; (b) It incurs borrowing costs[(1b)]; and (c) It undertakes activities that are necessary to prepare the asset for its	*Sub-item (1a): 1* *(1b): 1* *(1c): 1* **Total:1/1** **FC**:1 item **PC**:0 item **NC**: 0 item	*(1a): 1* *(1b): 1* *(1c): 1* **Total:1/1** **FC**:1 item **PC**:0 item **NC**: 0 item

	use or sale are in progress[1c]. [para. 13]	use or sale are in progress[1c]. [para .17]	intended use or sale[1c] [para. 17]		
4. Suspension of capitalisation	An entity shall suspend capitalisation of borrowing costs during extended periods in which it suspends development of a qualifying asset. [para. 16]	Capitalisation of borrowing costs shall be suspended during extended periods in which active development is interrupted. [para. 23]	An entity shall suspend capitalisation of borrowing costs during extended periods in which it suspends active development of a qualifying asset. [para. 20]	**1/1** **FC**:1 item **PC**:0 item **NC**: 0 item	**1/1** **FC**:1 item **PC**:0 item **NC**: 0 item
5. Cessation of capitalisation	- Capitalisation of borrowing costs shall cease when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete[1]. [para. 18] - When the construction of a qualifying asset is completed in parts and each part is capable of being used while construction continues on other parts, capitalisation of borrowing costs shall cease when substantially all the activities necessary to prepare that part for its intended use or sale are completed[2]. [para. 20]	- Capitalisation of borrowing costs shall cease when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete[1]. [para. 25] - When the construction of a qualifying asset is completed in parts and each part is capable of being used while construction continues on other parts, capitalisation of borrowing costs shall cease when substantially all the activities necessary to prepare that part for its intended use or sale are completed[2]. [para. 27]	- An entity shall cease capitalising borrowing costs when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete[1]. [para. 22] - When an entity completes the construction of a qualifying asset in parts and each part is capable of being used while construction continues on other parts, the entity shall cease capitalising borrowing costs when it completes substantially all the activities necessary to prepare that part for its intended use or sale[2]. [para. 24]	(1): 1 (2): 1 **Total: 2/2** **FC**:2 items **PC**:0 item **NC**: 0 item	(1): 1 (2): 1 **Total: 2/2** **FC**:2 items **PC**:0 item **NC**: 0 item
Total measurement item scores				9.25	10
Total measurement items			**FC** **PC** **NC** **Total**	9 1 0 10	10 0 0 10
Measurement scores			**FC Score** **PC Score** **NC Score** **DJCS.M**	9/10 = **90%** 1/10 = **10%** 0/10 = **0%** 9.25/10 = **92%**	10/10 = **100%** 0/10 = **0%** 0/10 = **0%** 10/10 = **100%**

Disclosure	VAS 16	Old IAS 23	Current IAS 23	Convergence Score	
				VAS 16 vs Old IAS 23	VAS 10 vs Current IAS 23
1. Accounting policy applicable to borrowing costs.	para. 22a	para. 29a	Silent	**1/1** **FC:** 1 item **PC:** 0 item **NC**: 0 item	**0/1** **FC:** 0 item **PC:** 0 item **NC**: 1 item
2. The amount of borrowing costs capitalised during the period.	para. 22b	para. 29b	para. 26a	**1/1** **FC:** 1 item **PC:** 0 item **NC**: 0 item	**1/1** **FC:** 1 item **PC:** 0 item **NC**: 0 item
3. The capitalisation rate used to determine the amount of borrowing costs eligible for capitalisation.	para. 22c	para. 29c	para. 26b	**1/1** **FC:** 1 item **PC:** 0 item **NC**: 0 item	**1/1** **FC:** 1 item **PC:** 0 item **NC**: 0 item
Total disclosure item scores				3	2
Total disclosure items		**FC**		3	2
		PC		0	0
		NC		0	1
		Total		3	3
Disclosure scores		**FC Score**		3/3 = **100%**	2/3 = **67%**
		PC Score		0/3 = **0%**	0/3 = **0%**
		NC Score		0/3 = **0%**	1/3 = **33%**
		DJCS.D		3/3 = **100%**	2/3 = **67%**
Total item scores				12.25	12
Total items		**FC**		12	12
		PC		1	0
		NC		0	1
		Total		13	13
Overall scores		**FC Score**		12/13 **= 92%**	12/13 **= 92%**
		PC Score		1/13 **= 8 %**	0/13 **= 0%**
		NC Score		0/13 **= 0%**	1/13 **= 8%**
		DJCS		12.25/13 **= 94%**	12/13 **= 92%**

Legend: FC: Full Convergence; PC: Partial Convergence; NC: Non-convergence; DJCS: Overall *De jure* Convergence Score, DJCS.M: Measurement *De jure* Convergence score, DJCS.D: Disclosure *De jure* Convergence Score.

Appendix C *De facto* Compliance Checklists for the Standard 'Borrowing Costs'

This appendix presents detailed items included in the compliance checklists for VAS 16 and its equivalent IAS 23 used to evaluate *de facto* compliance with the VAS and IAS/IFRS standard 'Borrowing Cost'.

VAS 16	IAS 23	Borrowing Costs
Measurement items		***Recognition***
1	1	An entity shall capitalise borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset.
2	2	An entity shall recognise other borrowing costs as an expense in the period in which it incurs them.
		Borrowing cost eligible for capitalisation
3	3	To the extent that an entity borrow funds specially for the purpose of obtaining a qualifying asset, the entity shall determine the amount of borrowing costs eligible for capitalisation as the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings.
4	4	To the extent that an entity borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the entity shall determine the amount of borrowing costs eligible for capitalisation by applying a capitalisation rate to the expenditures on that asset.
5	5	The capitalisation rate shall be the weighted average of the borrowing costs applicable to the borrowings of the entity that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset.
6	6	The amount of borrowing costs that an entity capitalises during a period shall not exceed the amount of borrowing costs it incurred during that period.
7	7	***Commencement of capitalisation*** The commencement date for capitalisation is the date when the entity first meets all of the following conditions: (a) It incurs expenditures for the asset; (b) It incurs borrowing costs; and (c) It undertakes activities that are necessary to prepare the asset for its intended use or sale.
8	8	***Suspension of capitalisation*** An entity shall suspend capitalisation of borrowing costs during extended periods in which it suspends active development of a qualifying asset.
		Cessation of capitalisation
9	9	An entity shall cease capitalising borrowing costs when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete.
10	10	When an entity completes the construction of a qualifying asset in parts and each part is capable of being used while construction continues on other parts, the entity shall cease capitalising borrowing costs when it completes substantially all the activities necessary to prepare that part for its intended use or sale.
Disclosure items		
1	N.A	Accounting policy applicable to borrowing costs
2	2	The amount of borrowing costs capitalised during the period
3	3	The capitalisation rate used to determine the amount of borrowing costs eligible for capitalisation

Appendix D Mann-Whitney U Tests: Sample Characteristics

As mentioned in Section 6.1, the normality assumption for T-tests is not completely satisfied and therefore the validity of T-tests is a concern. An additional non-parametric test (Mann-Whitney U test) is conducted and shown in Table D.1.

Table D.1 Mann-Whitney U Tests Comparing the HOSE Sub-Sample Companies and the HNX Sub-Sample Companies

Mann-Whitney U Test	Total Assets (VND Million)	Market Capitalisation (VND Million)	State Ownership Rate	Foreign Ownership Rate	ROA	ROE	Leverage	Applicable VAS Items	Applicable IAS/IFRS Items
Sig. (2 tailed)	.000***	.000***	.001***	.000***	.010**	.569	.004***	.000***	.000***

Legend: VND: Vietnamese dong. The inter-bank average rate of VND versus USD at 31 December 2010 quoted by the State Bank of Vietnam is one USD being equivalent to VND 18,932.00 (Document No 498/TB-NHNN).**Significant (p<.05); ***Highly significant (p<.01).

These Mann-Whitney U test's findings are very similar to the T-test's results presented in Table 6.1 (Section 6.1). The difference between the Ha Noi and the Ho Chi Minh stock exchanges are significant for all firm-specific factors except for ROE.

Appendix E Mann-Whitney U Tests: Individual Dichotomous Predictors and Dependent Variables

In Section 6.3.1.2, T-tests are employed to examine the relationships between individual dichotomous predictors and dependent variables. Nevertheless, the normality assumption for T-test is not fully satisfied and this may affect the validity of the T-tests conducted in Section 6.3.2.1. To deal with the normality issue, independent samples Mann-Whitney U tests, a non-parametric test, are employed as shown in Table E.1.

Table E.1 Independent Samples Mann-Whitney U Tests: Dichotomous Predictors and Dependent Variables

	VCI (sig.)	VCI.M (sig.)	VCI.D (sig.)	ICI (sig.)	ICI.M (sig.)	ICI.D (sig.)
State Ownership (20%)	.081*	.000***	.338	.221	.014**	.591
Foreign Ownership (5%)	.004***	.108	.028**	.003***	.241	.033**
Stock Exchange Location	.003***	.657	.007***	.001***	.791	.006***
Audit Firm Type	.361	.005***	.050*	.356	.076*	.033**
Industry Sector	.762	.330	.853	.913	.966	.756
Industry Profile	.135	.106	.220	.124	.145	.218
Business Complexity	.098*	.001***	.529	.021**	.000***	.604

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index; ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. *Moderately significant (p<.10); **Significant (p<.05); ***Highly significant (p<.01).

The Mann-Whitney U tests' findings shown in Table E.1 are very similar to the T-tests' results presented in Table 6.7 (Section 6.3.1.2). There are minor differences in the statistical significance levels of relationships between foreign ownership and disclosure compliance. The T-tests in Section 6.3.1.2 show moderately significant differences in disclosure *de facto* compliance between companies with foreign ownership lower than 5% and companies with foreign ownership equal to or greater than 5% for both VAS (p=.087) and IAS/IFRS (p=.063) while the Mann-Whitney U tests present significant differences (p=.028 for VAS and p=.033 for IAS/IFRS).

Appendix F Test of Linearity Assumption

Figures F.1-6 exhibit residual plots related to the stepwise regression models in the main analysis as mentioned in Section 6.3.2.1. The plots do not show any non-linear pattern to the residuals as identified by Hair et al. (2006) and thus the linearity assumption is deemed satisfied.

Figure F.1

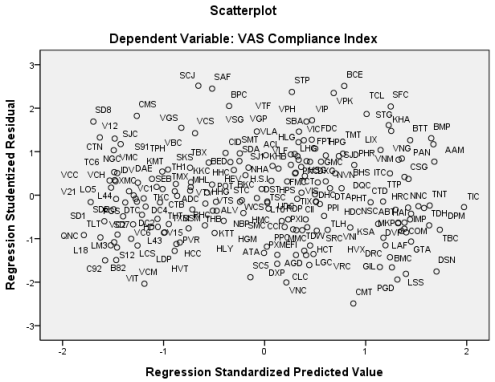


Figure F.2

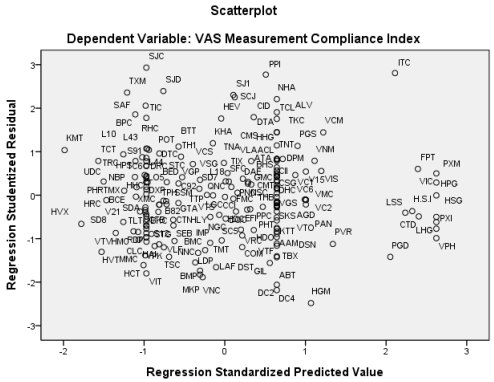


Figure F.3

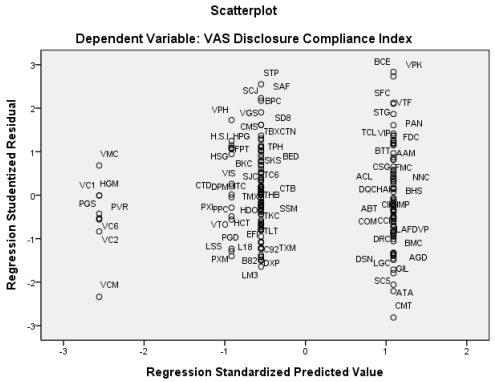


Figure F.4

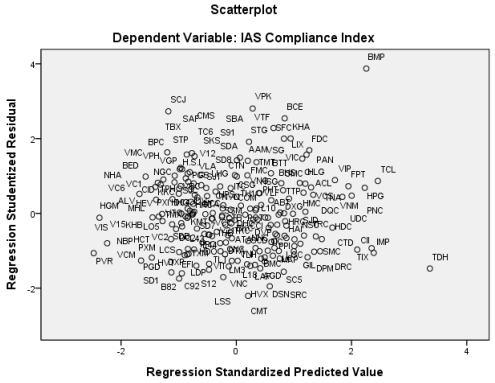


Figure F.5

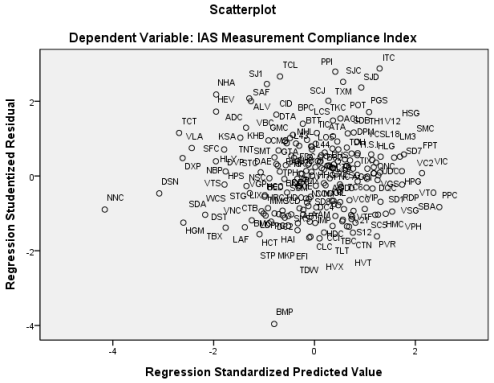
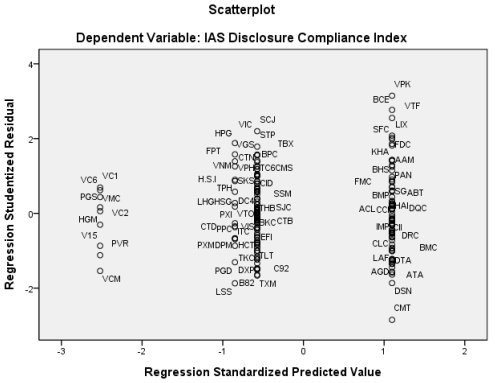


Figure F.6



Appendix G Test of Normal Distribution of Errors

Figures G.1-6 show the normal probability plots related to the stepwise regression models in the main analysis as mentioned in Section 6.3.2.1. As can be seen from each plot, the residual line closely follows the diagonal and therefore the normality assumption is deemed satisfied.

Figure G.1

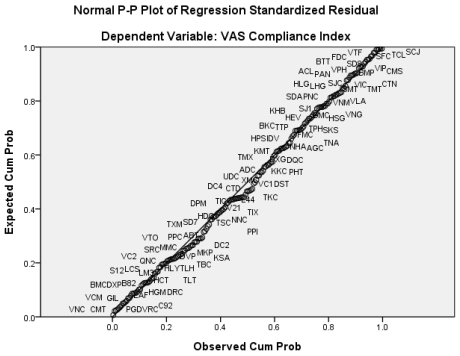


Figure G.2

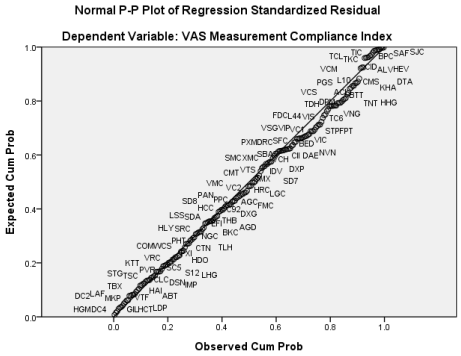


Figure G.3

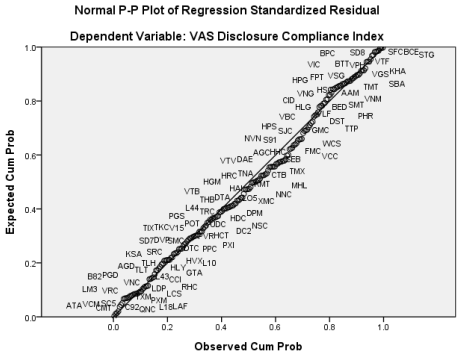


Figure G.4

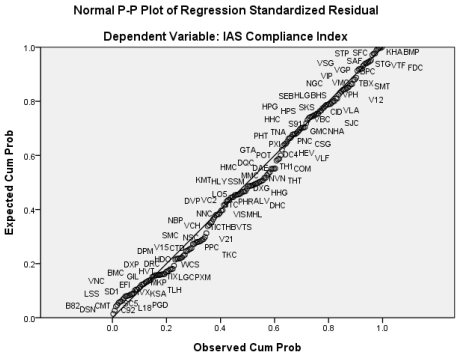


Figure G.5

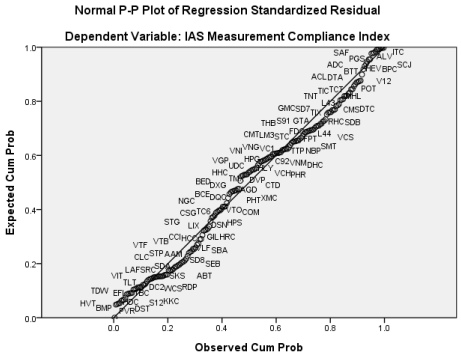
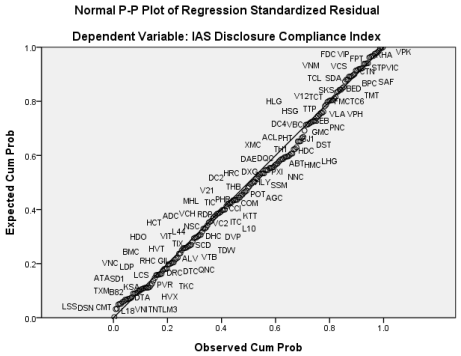


Figure G.6



Appendix H Full Multiple Regression Models in Main Analysis

In Section 6.3.2.2, the final stepwise regression models are analysed to explain the predictors of VAS and IAS/IFRS compliance. The equivalent full multiple regression models are respectively shown in Tables H.1 and H.2. This additional analysis is to explore the main differences between the full and the stepwise models.

Table H.1 Full Multiple Regression Models for VAS *De facto* Compliance (Main Analysis)

Independent and Control Variables	**Dependent variable: VCI** N 200 F value 2.401 Significant .013 Adjusted R^2 .060 Durbin-Watson 2.153						**Dependent variable: VCI.M** N 200 F value 2.740 Significant .005 Adjusted R^2 .073 Durbin-Watson 1.896						**Dependent variable: VCI.D** N 200 F value 2.285 Significant .019 Adjusted R^2 .055 Durbin-Watson 2.113					
	B	**Beta**	**T**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.780		11.684	.000			.811		12.225	.000			.785		9.519	.000		
Company Size^{IV1}	**.001**	**.028**	**.234**	**.815**	**.337**	**2.968**	**.003**	**.128**	**1.096**	**.275**	**.343**	**2.919**	**.000**	**.009**	**.077**	**.938**	**.341**	**2.935**
State Ownership^{IV2}	**-.012**	**-.089**	**-1.241**	**.216**	**.921**	**1.085**	**-.031**	**-.233**	**-3.273**	**.001*****	**.917**	**1.090**	**-.006**	**-.035**	**-.493**	**.622**	**.922**	**1.085**
Foreign Ownership^{CV1}	.028	.094	1.110	.268	.656	1.524	.039	.134	1.583	.115	.653	1.531	.012	.033	.387	.699	.658	1.520
ROA^{CV2}	-.028	-.087	-1.013	.312	.637	1.571	-.037	-.116	-1.358	.176	.636	1.572	-.032	-.079	-.913	.362	.637	1.571
Leverage^{CV3}	-.026	-.193	-1.969	.050*	.494	2.025	-.004	-.028	-.289	.773	.495	2.022	-.033	-.194	-1.978	.049**	.492	2.031
Stock Exchange Location^{CV4}	-.006	-.091	-1.007	.315	.581	1.721	.011	.178	1.990	.048**	.581	1.722	-.012	-.152	-1.687	.093*	.582	1.720
Audit Firm Type^{CV5}	-.013	-.141	-1.747	.082*	.726	1.378	.015	.166	2.066	.040**	.721	1.387	-.020	-.179	-2.213	.028**	.729	1.371
Industry Sector^{CV6}	.000	-.006	-.079	.937	.930	1.076	-.005	-.075	-1.053	.293	.920	1.087	.001	.012	.175	.861	.936	1.068
Business Complexity^{CV7}	.000	.113	1.231	.220	.563	1.776	.000	-.106	-1.164	.246	.563	1.777	.000	.050	.554	.580	.591	1.692
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	2.329		40.166	8.955		5.256	2.237		40.199	8.955		5.254	2.372		40.125	8.955		5.223
Cook's distance	.000		.033	.005		.007	.000		.067	.005		.010	.000		.050	.005		.007

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-7: Control variables. Company size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership=Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage=Total liabilities/Total assets; Stock Exchange Location (0=HOSE, 1=HNX); Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items. *Moderately significant (p<.10); **Significant (p<.05); ***Highly significant (p<.01).

Table H.2 Full Multiple Regression Models for IAS/IFRS *De facto* Compliance (Main Analysis)

Independent and Control Variables	**Dependent variable: ICI** N 200 F value 3.696 Significant .000 Adjusted R^2 .118 Durbin-Watson 2.093						**Dependent variable: ICI.M** N 200 F value 2.166 Significant .026 Adjusted R^2 .050 Durbin-Watson 1.939						**Dependent variable: ICI.D** N 200 F value 2.430 Significant .012 Adjusted R^2 .061 Durbin-Watson 2.094					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**T**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.576		8.181	.000			.695		9.877	.000			.576		6.713	.000		
Company Size^{IV1}	**.002**	**.081**	**.703**	**.483**	**.338**	**2.957**	**.005**	**.210**	**1.767**	**.079***	**.338**	**2.955**	**.001**	**.042**	**.362**	**.718**	**.347**	**2.885**
State Ownership^{IV2}	**-.010**	**-.071**	**-1.029**	**.305**	**.920**	**1.087**	**-.022**	**-.163**	**-2.258**	**.025****	**.913**	**1.095**	**-.006**	**-.033**	**-.463**	**.644**	**.922**	**1.085**
Foreign Ownership^{CV1}	.039	.121	1.464	.145	.654	1.529	.016	.050	.590	.556	.653	1.532	.009	.022	.258	.796	.656	1.526
ROA^{CV2}	-.015	-.043	-.513	.609	.637	1.571	-.046	-.140	-1.621	.107	.636	1.572	-.022	-.051	-.597	.551	.637	1.571
Leverage^{CV3}	-.018	-.124	-1.311	.191	.494	2.024	.004	.025	.259	.796	.495	2.022	-.024	-.134	-1.373	.171	.493	2.028
Stock Exchange Location^{CV4}	-.007	-.107	-1.231	.220	.582	1.719	.009	.136	1.498	.136	.581	1.721	-.014	-.168	-1.870	.063*	.582	1.718
Audit Firm Type^{CV5}	-.023	-.228	-2.905	.004***	.719	1.391	.006	.065	.804	.422	.721	1.388	-.027	-.226	-2.787	.006***	.721	1.388
Industry Sector^{CV6}	.003	.037	.541	.589	.926	1.080	-.003	-.047	-.658	.512	.921	1.086	.005	.054	.760	.448	.931	1.074
Business Complexity^{CV7}	.000	.204	2.289	.023**	.556	1.798	.000	-.072	-.771	.442	.550	1.819	.000	.083	.925	.356	.593	1.686
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	2.198		40.126	8.955		5.348	2.266		40.216	8.955		5.297	2.154		40.067	8.955		5.333
Cook's distance	.000		.193	.006		.015	.000		.213	.006		.017	.000		.037	.005		.007

Legend: ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-7: Control variables. Company size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership=Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage=Total liabilities/Total Assets; Stock Exchange Location (0=HOSE, 1=HNX); Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items. *Moderately significant (p<.10);**Significant (p<.05); ***Highly significant (p<.01).

The full multiple regressions show that leverage and audit firm type are moderately significant predictors of VAS overall *de facto* compliance (p=.050 for leverage and p=.082 for audit firm type, Table H.1), whereas the final stepwise regressions (Table 6.9) reveal that leverage and stock exchange location are significant predictors of VAS overall *de facto* compliance. The significant predictors of VAS measurement and disclosure *de facto* compliance shown in the full regressions are quite consistent with the final stepwise regressions discussed in Section 6.3.2.2. Exceptions are that stock exchange location and leverage are significant predictors of VAS measurement (p=.048) and disclosure p=.049, Table H.1) *de facto* compliance in the full regressions, but are not significant in the final stepwise regressions (see Table 6.9).

There are also some differences between the full and the final stepwise regressions for IAS/IFRS *de facto* company compliance. Foreign ownership and stock exchange location are significant predictors of IAS/IFRS overall *de facto* company compliance in the final stepwise regressions (see Table 6.10), but are not significant in the full regressions shown in Table H.2. Moreover, company size is only a moderately significant predictor of IAS/IFRS measurement *de facto* compliance in the full regressions (p =.079, Table H.2), but is a significant predictor in the final stepwise model. Another difference is that the full regressions show state ownership as a significant predictor (p=.025) of *de facto* company compliance with IAS/IFRS measurement rules instead of ROA shown in the final stepwise regressions. Interestingly, the predictors of IAS/IFRS disclosure *de facto* compliance are mostly consistent between the full and the stepwise regressions. A small difference is that stock exchange location is a moderately significant predictor of IAS/IFRS disclosure *de facto* compliance in the full regressions but is a significant predictor in the equivalent final stepwise regressions.

Regarding the hypotheses positing the relationships between the two key predictors (company size and state ownership), and *de facto* company compliance with VAS and IAS/IFRS in Vietnam, the full multiple regressions' results supports the hypotheses from the perspective of measurement only. This is consistent with the findings of the final stepwise regressions in the main analysis as discussed in Section 6.3.2.2. A difference is that company size is a moderately significant predictor of IAS/IFRS measurement *de facto* compliance in the full regressions, but is a significant predictor in the equivalent final stepwise regressions. Another difference is that state ownership is primarily shown as a significant predictor of IAS/IFRS measurement *de facto* compliance in the full regressions, but is not a significant predictor in the equivalent final stepwise regressions.

Appendix I Kruskal-Wallis Test: Four Disclosure *De facto* Compliance Groups

In Section 6.3.2.2, ANOVA is used to investigate the differences in company-specific factors among the four groups with different levels of disclosure compliance. However, the normality assumption is not always satisfied for all variables and therefore an additional non-parametric test, Kruskal-Wallis test, is employed as presented in Table I.1.

Table I.1 Kruskal-Wallis Test (four disclosure compliance groups)

Group	N	VCI.D	ICI.D	Assets (VND billion)	Market Capitalisation (VND billion)	State Ownership Rate	Foreign Ownership Rate	ROA	ROE	Leverage	Applicable VAS Disclosure Items	Applicable IAS/IFRS Disclosure Items
1	9	.7371	.5808	850	292	.4971	.0082	.1156	.3063	.6606	216	229
2	18	.7821	.6124	5,840	6,750	.1896	.1648	.1298	.2474	.5261	223	240
3	91	.7784	.6125	330	107	.3301	.0218	.0956	.2102	.5415	194	203
4	82	.7916	.6306	731	481	.2390	.0880	.1293	.2230	.4468	204	214
Kruskal-Wallis Test (sig.)		**.001*****	**.002*****	**.000*****	**.000*****	**.001*****	**.000*****	**.078***	**.189**	**.006*****	**.000*****	**.000*****

Legend: VCI.D: VAS Disclosure *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index; VND: Vietnamese dong. The inter-bank average rate of VND versus USD at 31 December 2010 quoted by the State Bank of Vietnam is one USD being equivalent to VND 18,932.00 (Document No 498/TB-NHNN). *Moderately significant (p<.10); ***Highly significant (p<.01).

Kruskal-Wallis test's statistical findings are very similar to the ANOVA findings as analysed in Section 6.3.2.2. A slight difference between the parametric (ANOVA) and the non-parametric tests (Table I.1) is that the former shows a non-statistically significant difference in ROA among the four groups, but the latter finds a moderate significance.

Appendix J Full Multiple Regression Models in Sensitivity Analysis

The full multiple regression models shown in Tables J.1 and J.2 respectively for VAS and IFRS compliance are corresponding to the final stepwise regression models discussed in the sensitivity analysis (Section 6.3.2.3).

Table J.1 Full Regressions for VAS *De facto* Compliance (Sensitivity Analysis)

Independent and Control Variables	**Dependent variable: VCI** N 200 F value 2.025 Significant .039 Adjusted R^2 .044 Durbin-Watson 2.187						**Dependent variable: VCI.M** N 200 F value 4.525 Significant .000 Adjusted R^2 .138 Durbin-Watson 1.916						**Dependent variable: VCI.D** N 200 F value 2.129 Significant .029 Adjusted R^2 .049 Durbin-Watson 2.142					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.784		12.586	.000			.908		15.674	.000			.772		10.007	.000		
Company Size^{IV1}	**.001**	**.048**	**.447**	**.655**	**.414**	**2.414**	**-.002**	**-.083**	**-.812**	**.418**	**.414**	**2.414**	**.001**	**.037**	**.344**	**.731**	**.414**	**2.414**
State Ownership^{IV2}	**-.003**	**-.051**	**-.709**	**.479**	**.921**	**1.086**	**-.016**	**-.250**	**-3.646**	**.000*****	**.921**	**1.086**	**.000**	**-.001**	**-.021**	**.984**	**.921**	**1.086**
Foreign Ownership^{CV1}	.009	.129	1.677	.095*	.806	1.241	.008	.118	1.611	.109	.806	1.241	.008	.092	1.196	.233	.806	1.241
ROE^{CV2}	-.017	-.073	-.968	.334	.848	1.179	.005	.023	.319	.750	.848	1.179	-.027	-.095	-1.264	.208	.848	1.179
Leverage^{CV3}	-.002	-.011	-.154	.878	.943	1.060	.033	.161	2.371	.019**	.943	1.060	-.013	-.051	-.710	.479	.943	1.060
Stock Exchange Location^{CV4}	-.008	-.133	-1.410	.160	.541	1.849	.009	.149	1.669	.097*	.541	1.849	-.014	-.180	-1.916	.057*	.541	1.849
Audit Firm Type^{CV5}	-.011	-.120	-1.506	.134	.753	1.329	.016	.178	2.347	.020**	.753	1.329	-.020	-.176	-2.210	.028**	.753	1.329
Industry Profile^{CV6}	-.008	-.091	-1.260	.209	.911	1.098	-.009	-.102	-1.480	.141	.911	1.098	-.007	-.062	-.858	.392	.911	1.098
Business Complexity^{CV7}	.002	.029	.383	.702	.839	1.192	.010	.152	2.117	.036**	.839	1.192	-.003	-.038	-.507	.613	.839	1.192
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	1.915		36.721	8.955		5.393	1.915		36.721	8.955		5.393	1.915		36.721	8.955		5.393
Cook's distance	.000		.057	.005		.008	.000		.071	.005		.009	.000		.057	.005		.009

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-7: Control variables. Company size=Ln Market Capitalisation; State Ownership (0=lower than 20%, 1=equal or higher than 20%); Foreign Ownership (0=lower than 5%, 1=equal or higher than 5%); ROE=Profit before tax/Equity; Leverage=Long-term liability/Total Assets; Stock Exchange Location (0=HOSE, 1=HNX); Audit Firm Type (0=non-big-four, 1=big-four); Industry Profile (0=low profile, 1=high profile); Business Complexity (0=No subsidiary, 1=Subsidiaries). *Moderately significant (p<.10); **Significant (p<.05); ***Highly significant (p<.01).

Table J.2 Full Regressions for IAS/IFRS *De facto* Compliance (Sensitivity Analysis)

Independent and Control Variables	**Dependent variable: ICI** N 200 F value 3.073 Significant .002 Adjusted R^2 .086 Durbin-Watson 2.116						**Dependent variable: ICI.M** N 200 F value 3.329 Significant .001 Adjusted R^2 .095 Durbin-Watson 1.950						**Dependent variable: ICI.D** N 200 F value 2.307 Significant .018 Adjusted R^2 .056 Durbin-Watson 2.104					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.617		9.323	.000			.845		13.611	.000			.603		7.518	.000		
Company Size^{IV1}	**.002**	**.087**	**.826**	**.410**	**.414**	**2.414**	**-.001**	**-.060**	**-.575**	**.566**	**.414**	**2.414**	**.001**	**.039**	**.364**	**.716**	**.414**	**2.414**
State Ownership^{IV2}	**.000**	**-.002**	**-.021**	**.983**	**.921**	**1.086**	**-.011**	**-.171**	**-2.433**	**.016****	**.921**	**1.086**	**.001**	**.016**	**.216**	**.829**	**.921**	**1.086**
Foreign Ownership^{CV1}	.010	.128	1.694	.092*	.806	1.241	.004	.061	.809	.420	.806	1.241	.008	.086	1.126	.262	.806	1.241
Return on Equity^{CV2}	-.008	-.033	-.447	.655	.848	1.179	-.005	-.023	-.317	.752	.848	1.179	-.017	-.057	-.768	.443	.848	1.179
Leverage^{CV3}	.004	.019	.267	.790	.943	1.060	.023	.107	1.543	.124	.943	1.060	.001	.004	.054	.957	.943	1.060
Stock Exchange Location^{CV4}	-.011	-.165	-1.790	.075*	.541	1.849	.008	.130	1.418	.158	.541	1.849	-.017	-.207	-2.212	.028**	.541	1.849
Audit Firm Type^{CV5}	-.016	-.162	-2.075	.039**	.753	1.329	.010	.111	1.435	.153	.753	1.329	-.023	-.197	-2.483	.014**	.753	1.329
Industry Profile^{CV6}	-.008	-.086	-1.212	.227	.911	1.098	-.006	-.067	-.944	.346	.911	1.098	-.007	-.056	-.781	.436	.911	1.098
Business Complexity^{CV7}	.007	.097	1.313	.191	.839	1.192	.018	.255	3.469	.001***	.839	1.192	-.003	-.032	-.432	.666	.839	1.192
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	1.915		36.721	8.955		5.393	1.915		36.721	8.955		5.393	1.915		36.721	8.955		5.393
Cook's distance	.000		.072	.005		.009	.000		.088	.005		.011	.000		.056	.005		.008

Legend: ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-7: Control variables.Company size=Ln Market Capitalisation; State Ownership (0=lower than 20%, 1=equal or higher than 20%); Foreign Ownership (0= lower than 5%, 1= equal or higher than 5%); ROE=Profit before tax/Equity; Leverage=Long-term liability/Total Assets; Stock Exchange Location (0=HOSE, 1=HNX); Audit Firm Type (0=non-big-four, 1=big-four); Industry Profile (0=low profile, 1=high profile); Business Complexity (0=No subsidiary, 1=Subsidiaries). *Moderately significant (p<.10); **Significant (p<.05); ***Highly significant (p<.01).

The full multiple regressions for VAS *de facto* compliance (see Table J.1) primarily does not reveal any significant relationship between overall VAS *de facto* company compliance and the predictors while the final stepwise regressions in the sensitivity analysis (see Table 6.13) show a significant relationship between overall VAS *de facto* compliance and stock exchange location. However, the full multiple regressions' results are quite consistent with the final stepwise regressions for VAS measurement and disclosure *de facto* compliance as analysed in Section 6.3.2.3. A unique difference is that the full multiple regressions show a significant relationship between VAS measurement *de facto* compliance and business complexity (p=.036, Table J.1), but this relationship is not significant in the equivalent final stepwise regressions.

For IAS/IFRS *de facto* compliance, significant predictors of measurement and disclosure compliance observed in the full multiple regression models (see Table J.2) are consistent with the final stepwise regressions' results (see Table 6.14). However, there is somewhat of a difference in predictors of overall IAS/IFRS *de facto* compliance between the full multiple regression models and the equivalent final stepwise regressions. Stock exchange location is considered as a moderately significant predictor of overall IAS/IFRS *de facto* compliance in the full multiple regression model (p=.075, Table J.2), but as a significant predictor in the equivalent final stepwise regression model (p=.000, Table 6.14, Section 6.3.2.3). In contrast, audit firm type is observed as a significant predictor of IAS/IFRS overall *de facto* compliance in the full regressions (p=.039, Table J.2), but is not a significant predictor in the final stepwise regression model.

Regarding the hypotheses positing the relationships between the two key predictors (company size and state ownership), and *de facto* company compliance with VAS and IAS/IFRS in Vietnam, the full multiple regressions' results only support the negative relationship between state ownership and 'measurement' *de facto* compliance by Vietnamese listed companies for both VAS and IAS/IFRS. This is aligned with the findings of the final stepwise regressions in the sensitivity analysis as discussed in Section 6.3.2.3.

Appendix K Scatter Plots from the Stepwise Regressions for Overall *De facto* Compliance in Sensitivity Analysis

Figure K.1

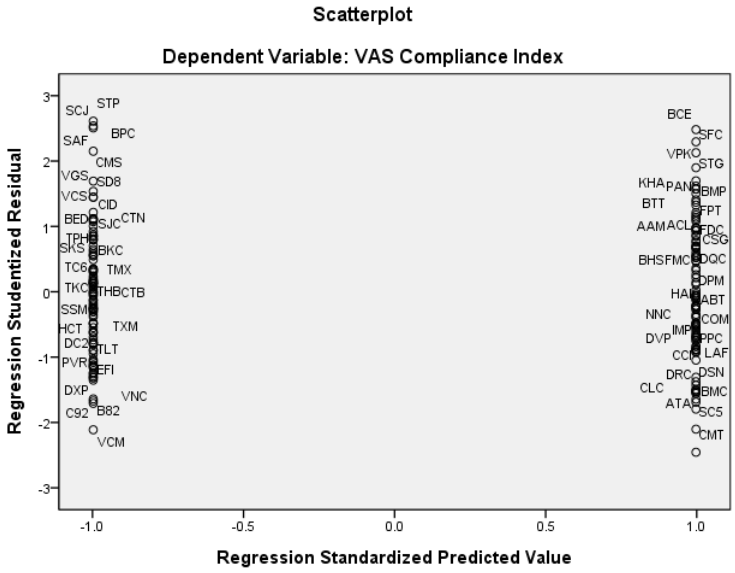
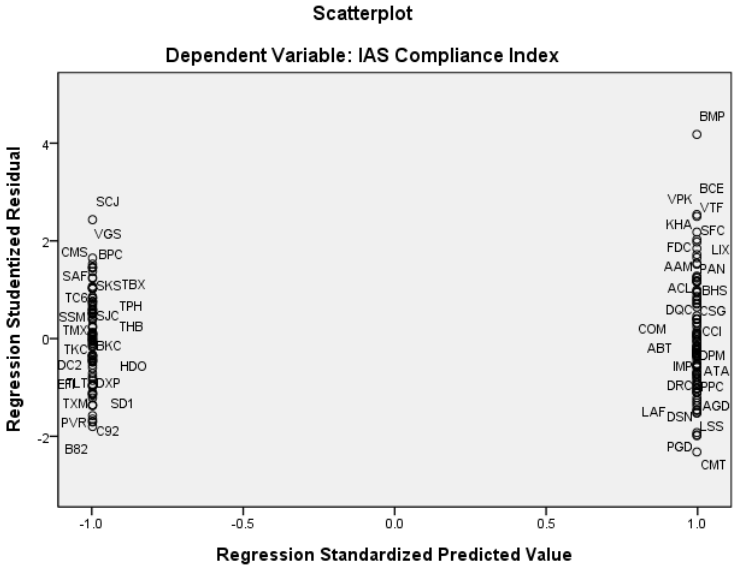


Figure K.2



The scatter plots created from stepwise regressions for overall *de facto* company compliance with VAS and IAS/IFRS in the sensitivity analysis shown in Figures K.1 and K.2 respectively classify the 200 companies into two groups which are the same as the two stock exchange groups. The differences between the two groups are analysed in Section 6.3.2.3.

Appendix L Full Multiple Regression Models for Ha Noi Stock Exchange Sub-Sample

Tables L.1 and L.2 show the full multiple regression models of VAS and IAS/IFRS *de facto* compliance respectively for the Ha Noi Stock Exchange sub-sample corresponding to the final stepwise regression models analysed in Section 6.3.2.4.

Table L.1 Full Multiple Regression Models for VAS *De facto* Compliance

Independent and Control Variables	**Dependent variable: VCI**						**Dependent variable: VCI.M**						**Dependent variable: VCI.D**					
	N		100				N		100				N		100			
	F value		1.951				F value		.705				F value		2.957			
	Significant		.062				Significant		.686				Significant		.006			
	Adjusted R^2		.071				Adjusted R^2		-.024				Adjusted R^2		.137			
	Durbin-Watson		1.986				Durbin-Watson		2.065				Durbin-Watson		1.982			
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.798		9.656	.000			.842		8.986	.000			.801		8.226	.000		
Company Size^{IV1}	**.002**	**.080**	**.570**	**.570**	**.472**	**2.118**	**.003**	**.093**	**.644**	**.521**	**.497**	**2.011**	**.003**	**.087**	**.639**	**.524**	**.468**	**2.138**
State Ownership^{IV2}	**-.013**	**-.102**	**-.995**	**.322**	**.891**	**1.122**	**-.020**	**-.145**	**-1.347**	**.181**	**.898**	**1.114**	**-.009**	**-.058**	**-.584**	**.561**	**.884**	**1.132**
Foreign Ownership^{CV1}	.057	.074	.709	.480	.855	1.169	.103	.125	1.128	.262	.846	1.182	.045	.048	.481	.632	.869	1.151
ROA^{CV2}	-.036	-.104	-.827	.411	.595	1.680	-.019	-.050	-.380	.705	.596	1.679	-.044	-.103	-.851	.397	.595	1.681
Leverage^{CV3}	-.035	-.287	-1.877	.064*	.401	2.494	.001	.009	.054	.957	.401	2.491	-.047	-.311	-2.109	.038**	.401	2.494
Audit Firm Type^{CV4}	-.016	-.155	-1.389	.168	.758	1.320	.019	.170	1.423	.158	.728	1.374	-.028	-.221	-2.103	.038**	.789	1.268
Industry Sector^{CV5}	.004	.069	.668	.506	.879	1.137	-.004	-.064	-.586	.559	.868	1.152	.008	.107	1.080	.283	.884	1.132
Business Complexity^{CV6}	.000	-.119	-.925	.357	.562	1.779	-.001	-.214	-1.634	.106	.604	1.656	.000	-.177	-1.431	.156	.573	1.745
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	1.830		28.881	7.920		5.316	1.830		28.314	7.920		5.243	1.830		29.222	7.920		5.340
Cook's distance	.000		.203	.013		.026	.000		.265	.013		.033	.000		.149	.012		.023

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-6: Control variables. Company size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership=Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage=Total liabilities/Total Assets; Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items. *Moderately significant (p<.10); **Significant (p<.05).

Table L.2 Full Multiple Regression Models for IAS/IFRS *De facto* Compliance

Independent and Control Variables	**Dependent variable: ICI** N 100 F value 1.212 Significant .301 Adjusted R^2 .017 Durbin-Watson 2.011						**Dependent variable: ICI.M** N 100 F value .984 Significant .454 Adjusted R^2 -.001 Durbin-Watson 1.981						**Dependent variable: ICI.D** N 100 F value 1.940 Significant .063 Adjusted R^2 .071 Durbin-Watson 1.949					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.603		7.327	.000			.698		7.308	.000			.598		6.084	.000		
Company Size[IV1]	**.002**	**.083**	**.577**	**.565**	**.476**	**2.099**	**.006**	**.201**	**1.409**	**.162**	**.496**	**2.017**	**.003**	**.085**	**.604**	**.547**	**.478**	**2.090**
State Ownership[IV2]	**-.015**	**-.120**	**-1.134**	**.260**	**.892**	**1.121**	**-.012**	**-.085**	**-.800**	**.426**	**.898**	**1.113**	**-.012**	**-.080**	**-.776**	**.440**	**.885**	**1.130**
Foreign Ownership[CV1]	.088	.118	1.101	.274	.865	1.156	.084	.099	.904	.368	.848	1.179	.089	.097	.939	.350	.881	1.135
ROA[CV2]	-.013	-.039	-.306	.761	.595	1.681	-.006	-.016	-.121	.904	.595	1.680	-.021	-.051	-.409	.683	.595	1.682
Leverage[CV3]	-.026	-.219	-1.392	.167	.401	2.496	.016	.120	.755	.452	.402	2.489	-.037	-.257	-1.678	.097*	.400	2.501
Audit Firm Type[CV4]	-.015	-.153	-1.337	.185	.754	1.327	.008	.075	.637	.526	.729	1.371	-.022	-.177	-1.617	.109	.783	1.277
Industry Sector[CV5]	.007	.106	.996	.322	.876	1.142	.000	.004	.040	.968	.870	1.150	.010	.127	1.229	.222	.880	1.136
Business Complexity[CV6]	.00006	.067	.508	.613	.567	1.763	-.001	-.232	-1.803	.075*	.611	1.637	.000	-.100	-.794	.429	.586	1.705
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	1.838		28.933	7.920		5.386	1.831		28.286	7.920		5.277	1.433		29.275	7.920		5.411
Cook's distance	.000		.123	.012		.020	.000		.152	.013		.025	.000		.103	.012		.017

Legend: ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-6: Control variables. Company size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership= Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage=Total liabilities/Total Assets; Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items. *Moderately significant (p<.10).

The full multiple regressions do not show any significant predictors of overall *de facto* compliance for IAS/IFRS (see Table L.1) and measurement *de facto* compliance for both VAS and IAS/IFRS (see Tables L.1 and L.2), except for business complexity observed as a moderately significant predictor of IAS/IFRS measurement *de facto* compliance by the companies listed on the Ha Noi Stock Exchange (p=.075, Table L.2). Consistent with the equivalent final stepwise regression models (see Table 6.15), the full multiple regressions reveal leverage and audit firm type are significant negative predictors of VAS disclosure compliance (p=.038 for leverage and p=.038 for audit firm type, Table L.1). Leverage is also considered as a moderately significant predictor of VAS overall *de facto* compliance (p=.064, Table L.1) and IAS/IFRS disclosure *de facto* compliance (p=.097, Table L.2) in the full multiple regressions, but shown as a significant predictor in the equivalent final stepwise regression models as analysed in Section 6.3.2.4. Audit firm type is not a significant predictor of overall VAS *de facto* compliance and IAS/IFRS disclosure *de facto* compliance in the full multiple regressions, but becomes a significant predictor in the equivalent final stepwise regressions.

Appendix M Full Multiple Regression Models for Ho Chi Minh Stock Exchange Sub-Sample

Tables M.1 and M.2 show the full multiple regression models of VAS and IAS/IFRS *de facto* compliance respectively for the Ho Chi Minh Stock Exchange sub-sample corresponding to the final stepwise regression models analysed in Section 6.3.2.4.

Table M.1 Full Multiple Regression Models for VAS *De facto* Compliance

Independent and Control Variables	**Dependent variable: VCI** N 100 F value 1.152 Significant .337 Adjusted R^2 .012 Durbin-Watson 2.222						**Dependent variable: VCI.M** N 100 F value 3.194 Significant .003 Adjusted R^2 .151 Durbin-Watson 1.887						**Dependent variable: VCI.D** N 100 F value .721 Significant .672 Adjusted R^2 -.023 Durbin-Watson 2.168					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.774		6.012	.000			.722		6.232	.000			.770		4.783	.000		
Company Size^{IV1}	**-.001**	**-.044**	**-.243**	**.808**	**.300**	**3.338**	**.006**	**.227**	**1.350**	**.180**	**.302**	**3.308**	**-.003**	**-.070**	**-.383**	**.703**	**.307**	**3.262**
State Ownership^{IV2}	**.004**	**.030**	**.295**	**.769**	**.932**	**1.072**	**-.039**	**-.294**	**-3.051**	**.003*****	**.924**	**1.083**	**.017**	**.097**	**.925**	**.358**	**.939**	**1.064**
Foreign Ownership^{CV1}	.026	.104	.829	.409	.634	1.577	.026	.115	.987	.326	.635	1.574	.010	.033	.262	.794	.633	1.581
ROA^{CV2}	-.019	-.064	-.521	.604	.660	1.515	-.047	-.168	-1.469	.145	.659	1.518	-.017	-.045	-.361	.719	.661	1.512
Leverage^{CV3}	-.010	-.065	-.484	.630	.554	1.804	-.010	-.072	-.573	.568	.551	1.814	-.011	-.056	-.413	.680	.555	1.801
Audit Firm Type^{CV4}	-.008	-.098	-.749	.456	.583	1.716	.010	.130	1.070	.287	.583	1.715	-.012	-.118	-.888	.377	.583	1.716
Industry Sector^{CV5}	-.004	-.057	-.541	.590	.892	1.121	-.007	-.104	-1.053	.295	.882	1.133	-.004	-.049	-.455	.650	.902	1.109
Business Complexity^{CV6}	.000	.304	2.307	.023**	.576	1.736	.000	-.072	-.588	.558	.576	1.737	.000	.240	1.830	.071*	.599	1.669
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	1.365		31.498	7.920		4.613	1.357		31.515	7.920		4.646	1.380		31.489	7.920		4.584
Cook's distance	.000		.051	.010		.012	.000		.118	.011		.020	.000		.059	.010		.012

Legend: VCI: VAS Overall *De facto* Compliance Index; VCI.M: VAS Measurement *De facto* Compliance Index; VCI.D: VAS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-6: Control variables. Company size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership=Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage=Total liabilities/Total Assets; Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items.*Moderately significant (p<.10); **Significant (p<.05); ***Highly significant (p<.01).

Table M.2 Full Multiple Regression Models for IAS/IFRS *De facto* Compliance

Independent and Control Variables	**Dependent variable: ICI** N 100 F value 1.674 Significant .115 Adjusted R^2 .052 Durbin-Watson 1.991						**Dependent variable: ICI.M** N 100 F value 2.502 Significant .017 Adjusted R^2 .108 Durbin-Watson 1.981						**Dependent variable: ICI.D** N 100 F value .862 Significant .052 Adjusted R^2 -.011 Durbin-Watson 2.076					
	B	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**	**B**	**Beta**	**t**	**Sig.**	**Tol.**	**VIF**
Constant	.586		4.006	.000			.656		5.132	.000			.556		3.169	.002		
Company Size^{IV1}	**.000**	**.005**	**.027**	**.978**	**.297**	**3.370**	**.007**	**.226**	**1.283**	**.203**	**.291**	**3.435**	**.000**	**-.012**	**-.066**	**.947**	**.310**	**3.223**
State Ownership^{IV2}	**.003**	**.016**	**.153**	**.879**	**.929**	**1.077**	**-.030**	**-.216**	**-2.176**	**.032****	**.911**	**1.098**	**.014**	**.074**	**.706**	**.482**	**.940**	**1.064**
Foreign Ownership^{CV1}	.044	.154	1.256	.212	.635	1.575	.004	.015	.122	.903	.635	1.574	.009	.026	.207	.837	.635	1.576
ROA^{CV2}	-.012	-.035	-.288	.774	.660	1.515	-.074	-.247	-2.110	.038**	.658	1.519	-.012	-.029	-.236	.814	.662	1.512
Leverage^{CV3}	.002	.009	.070	.944	.552	1.812	-.013	-.086	-.672	.503	.548	1.823	.006	.029	.213	.832	.554	1.806
Audit Firm Type^{CV4}	-.024	-.252	-1.973	.052*	.586	1.707	.005	.060	.481	.632	.582	1.717	-.028	-.242	-1.836	.070*	.587	1.704
Industry Sector^{CV5}	.000	.005	.052	.959	.886	1.128	-.009	-.121	-1.199	.233	.881	1.135	.002	.019	.182	.856	.894	1.119
Business Complexity^{CV6}	.000	.311	2.365	.020**	.552	1.810	.000	.014	.106	.916	.545	1.837	.000	.216	1.635	.106	.585	1.709
Residuals Statistics	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**	**Min**		**Max**	**Mean**		**SD**
Mahalanobis distance	1.371		31.487	7.920		4.672	1.363		31.519	7.920		4.651	1.377		31.481	7.920		4.677
Cook's distance	.000		.228	.011		.025	.000		.262	.012		.032	.000		.067	.010		.013

Legend: ICI: IAS/IFRS Overall *De facto* Compliance Index; ICI.M: IAS/IFRS Measurement *De facto* Compliance Index; ICI.D: IAS/IFRS Disclosure *De facto* Compliance Index. Tol.: Tolerance. IV1-2: Independent variables; CV1-6: Control variables. Company size=Ln Assets; State Ownership=Shares held by the state/Total outstanding shares; Foreign Ownership=Shares held by foreign shareholders/Total outstanding shares; ROA=Profit before tax/Total assets; Leverage=Total liabilities/Total Assets; Audit Firm Type (0=non-big-four, 1=big-four); Industry Sector (0=non-manufacturing, 1=manufacturing); Business Complexity=Number of applicable standard items. *Moderately significant (p<.10); **Significant (p<.05).

The findings from the full multiple regressions are somewhat consistent with the final stepwise regressions for the Ho Chi Minh Stock Exchange sub-sample as analysed in Section 6.3.2.4. A major difference is that company size is not a significant predictor in the full multiple regressions (see Tables M.1 and M.2), but becomes a significant predictor of measurement *de facto* compliance for both VAS and IAS/IFRS in the corresponding final stepwise regressions (see Table 6.16). In contrast, ROA is a significant negative predictor of IAS/IFRS measurement *de facto* compliance in the full multiple regressions (p=.038, Table M.2), but is not a significant predictor in the final stepwise regressions. Business complexity and audit firm type are moderately significant predictors of disclosure *de facto* compliance for VAS (p=.071, Table M.1) and IAS/IFRS (p=.070, Table M.2) respectively; however, the stepwise procedures do not generate significant models for VAS disclosure *de facto* compliance and IAS/IFRS disclosure de *facto* compliance by the Vietnamese listed companies listed on the Ho Chi Minh Stock Exchange. Another small difference is that audit firm type shown as a moderately significant predictor of IAS/IFRS overall *de facto* compliance (p=.052, Table M.2) is a significant predictor in the equivalent final stepwise regressions (p=.033, Table 6.16).

Appendix N Assessing the Validity and Reliability of Multiple Regression Models

In order to better assure the validity and reliability of the multiple regressions' results used in Section 7.3, the relevant assumptions and outliers are tested in this appendix. Underlying assumptions for multiple regressions include linearity, independence of independent variables, normality and independence of errors.The first, linearity, is assessed through an analysis of residual plots. The residual plots of all regression models used in Section 7.3 (see Figures N.1, N.2 and N.3) do not show any non-linear pattern to the residuals as identified by Hair et al. (2006). The linearity assumption is thus deemed satisfied. The second, independence of independent and control variables, requires independent variables not highly correlated with each other. This assumption can be tested by Pearson correlation coefficients, tolerance coefficients or the variance inflation factor (VIF). As discussed in Section 7.3, Pearson correlation coefficients show weak correlations of IAS/IFRS *de jure* convergence and VAS *de facto* compliance at all the overall, measurement and disclosure levels with the coefficients far lower than 0.7 (the maximum value is 0.169, see Table 7.4). In addition, all the models have tolerance coefficients above 0.10 and VIF below 10 (see Table 7.5). Therefore, multicollinearity is not deemed a problem in the three regression models (Lind, Marchal, and Wathen 2004; Hair et al. 2006). The third, independence of errors, can be assessed by the Durbin-Watson statistic. The Durbin-Watson values are 2.697 for model 1, 0.868 for model 2 and 2.459 for model 3 (see Table 7.5) which are quite far from the benchmark figure of 2. Therefore, the assumption of independence of errors may be violated (Norusis 2008). However, this is not deemed a fatal flaw. The final statistical assumption, normal distribution of errors, could be assessed through a visual examination of a histogram of the residual (Hair et al. 2006). Figures N.4, N.5 and N.6 show histograms of the residuals from the three regression equations. The distributions look approximately normal. Overall, the statistical assumptions are considered to be met.

In order to better assure the reliability of the multiple regression results, outliers are further examined based on Mahalanobis distance and Cook's distance scores (Norusis 2008). An outlier may cause a concern where the Mahalanobis distance is above 25 (Field 2005) and Cook's distance is above 1 (Cook and Weisberg 1982; Norusis 2008). The multiple regression models 1 and 3 do not have any observations with the Mahalanobis distance above 25 (the maximum is 7.789, Table 7.5, Panels A and C) nor Cook's distance above 1 (the maximum is 0.833, Table 7.5, Panels A and C). Model 2 does not have any observations with the Mahalanobis distance above 25 (the maximum is 10.992, Table 7.5, Panel B), but does have one observation with the Cook's distance of 1.309. However, this observation has a small Mahalanobis distance of 3.084 (far lower than 25) and therefore is not eliminated from the multiple regression model.

In summary, the three multiple regression models discussed in Section 7.3 (Chapter 7) could be considered to be valid and reliable, as the fundamental assumptions for the use of multiple regressions are deemed satisfied by the models, and outliers are not considered a concern for the regression models.

Figure N.1

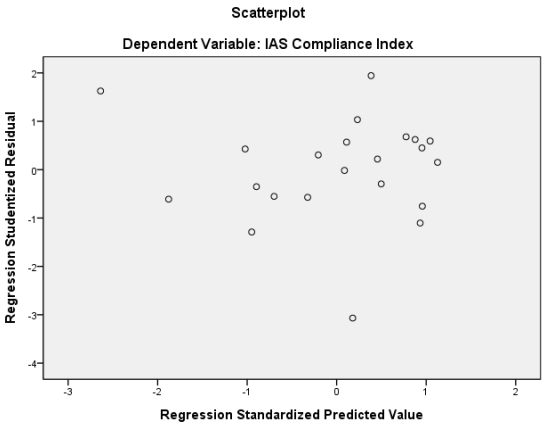


Figure N.2

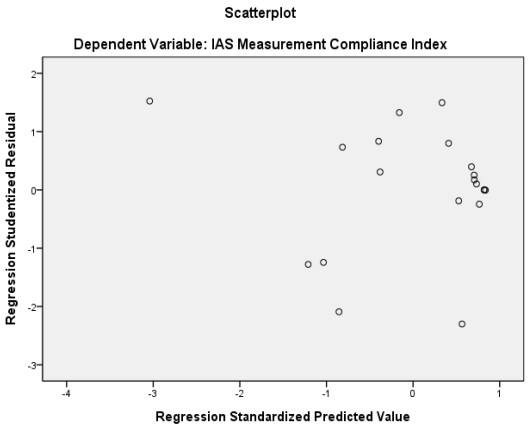


Figure N.3

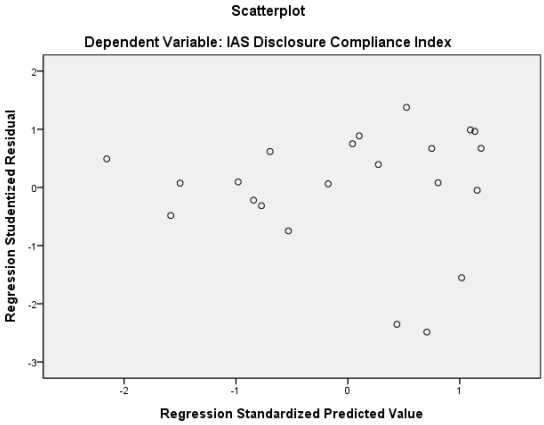


Figure N.4

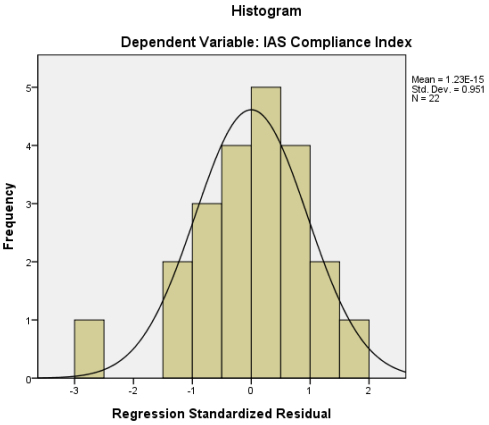


Figure N.5

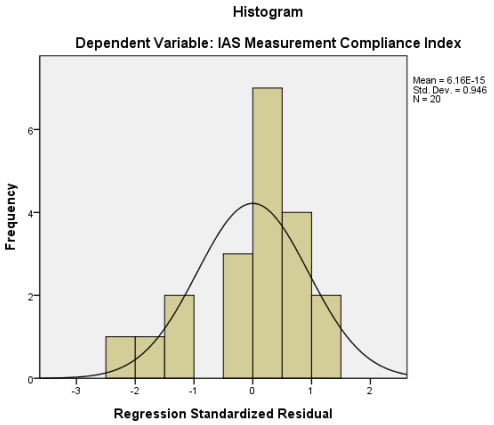


Figure N.6