THE INTERACTION OF VOLUNTARY AND MANDATORY DISCLOSURES: EVIDENCE FROM THE SEC'S ELIMINATION OF THE IFRS-U.S. GAAP RECONCILIATION

by

YINGRI YU

(Under the Direction of Under the Direction of Professor Stephen P. Baginski)

ABSTRACT

In November 2007, the SEC approved a new rule to eliminate the IFRS-U.S. GAAP reconciliation requirement for foreign private issuers (hereafter, IFRS firms). The relaxation of the SEC's reconciliation requirement raises concern about a potential information loss associated with the decreased mandatory disclosure. This study examines the interaction of IFRS firms' voluntary and mandatory disclosures surrounding the implementation of the SEC's new reconciliation rule. I find that IFRS firms significantly increase their overall voluntary disclosures in annual financial reports and earnings announcement press releases after elimination of the reconciliation. Specifically, they increase voluntary disclosures about the prior reconciling items in their financial reports. My results further show that such increases in IFRS firms' voluntary disclosure are associated with IFRS firms' relations with U.S. markets. IFRS firms with more U.S. revenues are more likely to increase voluntary disclosure, while IFRS firms with more U.S. competitors are less likely to increase voluntary disclosure after the SEC eliminated the reconciliation. In addition, I examine whether increases in IFRS firms' voluntary disclosures mitigate the potential impact of eliminating the IFRS-U.S. GAAP reconciliation on

IFRS firms' capital market conditions. The results are not conclusive regarding the capital market consequences of the SEC's new reconciliation rule. Overall, my findings are broadly consistent with the hypothesis that firms use voluntary disclosure to optimize total corporate disclosure levels in response to a mandatory disclosure change.

INDEX WORDS: IFRS-U.S. GAAP reconciliation, voluntary disclosure, mandatory disclosure

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YINGRI YU

B.B.A., Sun Yat-sen University, P.R.China, 2004

M.Sc., Hong Kong University of Science and Technology, Hong Kong, 2005

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YINGRI YU

Major Professor:	Stephen P. Baginski
Committee:	Benjamin C. Ayers
	Linda S. Bamber
	Jennifer J. Gaver

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
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DEDICATION

To

my parent,

Xiangxin Gu and Xiande Yu,

for their love, concern, support and strength.

And to

my husband

Siyuan Li,

for his patience and understanding.

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CHAPTER 1

INTRODUCTION

On November 15, 2007, the Securities and Exchange Commission (SEC) voted in favor of a proposal to allow foreign private issuers to file financial reports in accordance with International Financial Reporting Standards (IFRS) without reconciling to United States generally accepted accounting principles (U.S. GAAP). The SEC Final Rule No. 33-8879 (hereafter, the SEC's new reconciliation rule) became effective on March 4, 2008. Elimination of the reconciliation is controversial. Proponents of the SEC's new reconciliation rule argue that there is no conclusive research evidence indicating U.S. GAAP provides more useful information to investors than IFRS. Moreover, the IFRS-U.S. GAAP reconciliation is costly to prepare but is rarely used by most capital market participants. Therefore, they believe that elimination of the reconciliation reduces regulatory compliance costs without impairing investor protection or market information (AAA, 2008a; Bloomberg and Schumer, 2007). On the other hand, opponents argue that because of the significant differences between IFRS and U.S. GAAP, the reconciliation includes valuable information and eliminating it would reduce the relevant information set available to U.S. investors (AAA, 2008b).

I contribute to the debate on whether the SEC's elimination of the reconciliation affects the corporate information environment by investigating the interaction of voluntary and mandatory disclosures surrounding the rule change. When mandatory disclosure is imperfect, managers use voluntary disclosure to communicate their superior knowledge of firms'

performance to investors (see Healy and Palepu, 2001). Because voluntary and mandatory disclosures are likely interdependent, researchers and regulators cannot assess the implications of a new mandatory disclosure regulation without considering its effect on voluntary disclosure. There is, however, limited empirical evidence on the interaction between voluntary and mandatory disclosures (see Beyer, Cohen, Lys, and Walther, 2010).

This study examines how foreign private issuers (hereafter, IFRS firms) change their voluntary disclosure practices after the SEC eliminated the IFRS-U.S. GAAP reconciliation requirement. I investigate three related research questions: (1) Do IFRS firms increase voluntary disclosure after the SEC relaxed the mandatory disclosure requirement? (2) Do cross-sectional differences in IFRS firms' relations with U.S. capital and product markets explain differences in IFRS firms' voluntary disclosure changes in response to elimination of the IFRS-U.S. GAAP reconciliation? (3) Do IFRS firms' voluntary disclosure changes mitigate potential effects of the SEC's elimination of the IFRS-U.S. GAAP reconciliation on firms' capital market conditions?

Firms trade off costs and benefits of disclosure when determining their optimal levels of total disclosure (see Leuz and Wysocki, 2008). If a firm's optimal disclosure level is above or equal to the mandatory disclosure level and a new regulation removes some value-relevant information, the firm has incentives to replace the missing information with voluntary disclosure. At the time of the SEC's rule change, IFRS firms satisfy both conditions. First, IFRS firms voluntarily opted into the U.S. regulatory regime and bonded themselves to the SEC's former disclosures requirements (i.e., the IFRS-U.S. GAAP reconciliation). The choice to cross-list implies that their optimal disclosure levels are above or equal to the disclosure level required by the SEC. Second, the IFRS-U.S. GAAP reconciliation contains value-relevant information incremental to IFRS financial statements (Chen and Sami, 2008; Gordon, Jorgensen, and

Linthicum, 2009; Henry, Lin, and Yang, 2009). Prior studies suggest that both mandatory and voluntary disclosures can contain value-relevant information that provides firms with similar disclosure benefits, such as lower cost of capital and higher liquidity (e.g., Leuz and Verrecchia, 2000; Healy, Hutton, and Palepu, 1999; Botosan, 1997). Therefore, I expect that removal of the reconciliation places IFRS firms below their optimal disclosure levels, which motivates them to increase their voluntary disclosure.[1]

Besides a potential shift in the average level of IFRS firms' voluntary disclosure, I also investigate the determinants of cross-sectional variation in IFRS firms' voluntary disclosure changes after elimination of the reconciliation. Prior research suggests that a firm's relations with capital and product markets are likely to affect its disclosures (Gibbins, Richardson, and Waterhouse, 1990). I expect three aspects of IFRS firms' relations with U.S. capital and product markets to affect their voluntary disclosure in response to the elimination. First, U.S. investors tend to spend more cross-border investments in foreign firms whose disclosures conform to U.S. practices (Bradshaw, Bushee, and Miller, 2004). I predict that IFRS firms that rely more heavily on U.S. capital markets are more likely to increase voluntary disclosure in response to elimination of the IFRS-U.S. GAAP reconciliation. Second, foreign firms that have greater interaction with U.S. product markets on average provide higher levels of disclosures (Khanna, Palepu, and Srinivasan, 2004). I predict that IFRS firms earning a greater percent of revenues from U.S. product markets are more likely to increase voluntary disclosure to compensate for the information loss due to elimination of the reconciliation. Third, accounting theory suggests that competition among existing rivals discourages voluntary disclosure (Clinch and Verrecchia, 1997; Darrough, 1993). IFRS firms obtain advantages by providing IFRS earnings alone when

[1] My hypothesis does not require that IFRS firms fully replace the mandatory disclosure requirement by voluntarily continuing the same disclosure, just the portion of the lost information that has disclosure benefits.

competing with U.S. rivals because most firms' IFRS earnings are higher than their U.S. GAAP earnings (Ciesielski, 2007). Therefore, I predict that IFRS firms with more existing U.S. competitors are less likely to increase voluntary disclosure after elimination of the reconciliation.

Elimination of the IFRS-U.S. GAAP is a unique setting, where policy makers relax a mandatory disclosure requirement instead of adding a new requirement. This setting provides an opportunity to examine capital market consequences of decreased mandatory disclosure. Economic theory suggests that increased disclosure should lower the information asymmetry component of the firms' cost of capital (Diamond and Verrecchia, 1991; Baiman and Verrecchia, 1996). Consistently, prior studies that examine the link between changes in levels of disclosure and cost of capital find that an increased level of disclosure reduces the information asymmetry component of the firm's cost of capital (Leuz and Verrecchia, 2000; Crawley, Ke, and Yu, 2010). However, it is unclear whether a decrease in mandatory disclosure has a symmetric effect on the firms' cost of capital (i.e. whether the information asymmetry component of the firms' cost of capital increases). I argue that it is important to take into account the interaction between mandatory disclosure and other information sources, such as voluntary disclosure when examining the capital market consequences of a relaxation of mandatory disclosure. Similar to mandatory disclosure, voluntary disclosure can also provide firms with disclosure benefits, such as lower cost of capital and higher liquidity (e.g., Leuz and Verrecchia, 2000; Healy, Hutton, and Palepu, 1999; Botosan, 1997). I predict that IFRS firms substituting the removed mandatory IFRS-U.S. GAAP reconciliation with more voluntary disclosure are less likely to experience deterioration in capital market conditions.

At the end of 2007, about 800 foreign firms are cross-listed on U.S. exchanges. I identify 90 of these cross-listed firms that use IFRS in both the pre-elimination year and the post-

elimination year.[2] To control for over time increases in voluntary disclosure and other exogenous shocks that could affect firms' disclosure practices (e.g., other mandatory disclosure changes, economy or industry-wide events), I match each IFRS firm with a foreign firm based on size and industry. Matched foreign firms are also cross-listed on U.S. exchanges but do not issue financial statements according to IFRS (hereafter, non-IFRS firms). I test whether IFRS firms voluntarily increase disclosures about prior reconciling items in their financial statement footnotes after elimination of the reconciliation, controlling for non-IFRS firms' increased disclosures about the most common reconciling items. Also, using a difference-in-differences design with appropriate controls, I examine whether IFRS firms significantly increase their voluntary disclosure in both annual financial reports and earnings announcement press releases after elimination of the reconciliation. This difference-in-differences analysis controls for (1) IFRS firms' voluntary disclosure changes before elimination of the reconciliation and (2) non-IFRS firms' voluntary disclosure changes both before and after elimination of the reconciliation.

As predicted, I find that IFRS firms increase voluntary disclosure after elimination of the IFRS-U.S. GAAP reconciliation. The increases in IFRS firms' voluntary disclosure are significant after controlling for: (1) IFRS firms' voluntary disclosure changes before, and (2) non-IFRS firms' voluntary disclosure changes both before and after elimination of the reconciliation. On average, IFRS firms disclose more information in earnings announcement press releases, increase the number of pages in their financial statement footnotes, and increase

[2] For a firm with fiscal years ending between November 15 and June 29, fiscal year 2007 was the first fiscal year in which the SEC's new reconciliation rule became effective. For a firm with fiscal years ending between June 30 and November 14, fiscal year 2008 was the first fiscal year in which the SEC's new reconciliation rule became effective. To simplify, I refer to the last fiscal year before the implementation of the SEC's new reconciliation rule as the pre-elimination year and the first fiscal year after the implementation of the SEC's new reconciliation rule as the post-elimination year.

disclosures about prior reconciling items in their financial reports after elimination of the reconciliation.

Additionally, as predicted, I find that IFRS firms who earn a greater percent of their revenues in the U.S. are more likely to increase voluntary disclosure after elimination of the reconciliation, and IFRS firms facing more U.S. competition are less likely to increase voluntary disclosure. I also find some evidence that large U.S. investor ownership is positively associated with IFRS firms' increases in voluntary disclosure after elimination of the reconciliation.

Finally, when using bid-ask spread as a proxy for information asymmetry component of cost of capital, I find that IFRS firms with a higher number of page increases after the SEC's elimination of the reconciliation in financial statement footnotes experience less increases in bid-ask spread relative to IFRS firms with a lower number of page increases in financial statement footnotes. However, my results using other proxies of capital market conditions are not conclusive regarding whether changes in voluntary disclosure mitigate the potential negative impacts of elimination of the IFRS-U.S. GAAP reconciliation on firm's capital market conditions.

This study contributes to the existing literature in several ways. First, this study adds to the literature on the consequences of mandatory disclosure changes. Research on the effects of new mandatory disclosure regulations often attributes changes in firms' information environments and/or capital market conditions to the new regulation without consideration of the effects of the regulations on other disclosure practices. For example, a concurrent paper by Kim, Li, and Li (2011) concludes that the SEC's elimination of the IFRS-U.S. GAAP reconciliation does not result in information loss or greater information asymmetry, on the basis of their evidence that IFRS firms on average do not suffer negative effects on liquidity, probability of

informed trading, or cost of capital after elimination of the reconciliation. However, the consequences they document might be attributable to concurrent disclosure and measurement improvements such as IFRS firms' increased voluntary disclosure (as documented in this study) and improved earnings informativeness (Hansen, Pownall, Prakash, and Vulcheva, 2010) after the implementation of the SEC's new reconciliation rule. My results on changes in IFRS firms' capital market conditions after the elimination provide some preliminary evidence that IFRS firms use voluntary disclosure to mitigate the potential negative effects of decreased mandatory disclosure.

Second, this study also contributes to an emerging literature on the relation between voluntary and mandatory disclosures. Prior theoretical and empirical research mainly focuses on how voluntary disclosure complements existing mandatory disclosure (e.g., Einhorn, 2005; Lennox and Park, 2006; Bagnoli and Watts, 2007; Francis, Nanda, and Olsson, 2008; Ball, Jayaraman, and Shivakumar, 2010). This study shows that, on average, firms increase their voluntary disclosure in response to a reduction in mandatory disclosure. Moreover, the substitution between voluntary and mandatory disclosures is associated with firm-specific disclosure incentives that predict the magnitude of the substitution effect. My findings also highlight the importance of examining product markets related disclosure incentives.

Finally, relaxation of mandatory disclosure requirements is rare in advanced economies such as that of the U.S. My evidence that firms replace at least some of the formerly mandated disclosure with voluntary disclosure sheds light on discussions about IFRS adoption in the U.S. Both IFRS and U.S. GAAP allow considerable managerial discretion in choosing how to apply the mandated standards. If adopting IFRS reduces mandatory disclosure, U.S. firms have the option to go beyond mandatory disclosure and voluntarily provide more information if their

optimal disclosure levels are above the level mandated under IFRS. Thus, IFRS adoption need not necessarily lead to a reduction in total disclosure if firms voluntarily report formerly mandated value-relevant information (Hail, Leuz, and Wysocki, 2010).[3]

The remainder of the paper is organized as follows. Chapter 2 reviews relevant prior literature and develops hypotheses. Chapter 3 discusses my empirical proxies and data sources. Chapter 4 describes the sample, and Chapter 5 presents empirical work. Chapter 6 reports my conclusions.

[3] On the other hand, if adopting IFRS increases mandatory disclosure, U.S. firms might resist mandatory disclosure changes that exceed their optimal disclosure levels by using the flexibility inherent in accounting standards (Hail, Leuz, and Wysocki, 2010).

CHAPTER 2

BACKGROUND AND HYPOTHESES

During 1979 -1982, the SEC adopted significant amendments to the disclosure requirements applicable to foreign private issuers. The goal of these amendments was to "design a system that parallels the system for domestic issuers" (SEC, 1981). Accordingly, foreign firms listed in the U.S. had to disclose essentially equivalent information complying with U.S. GAAP in their annual filing (Form 20-F) to the SEC. Before the SEC eliminated the reconciliation, IFRS firms could prepare either complete U.S. GAAP financial statements or statements based on IFRS as long as they also included a reconciliation of net income and shareholders' equity to U.S. GAAP. The reconciliation began with IFRS net income (shareholder's equity), quantified each material difference with U.S. GAAP, and ended with net income (equity) under U.S. GAAP. IFRS firms also provided verbal descriptions of material differences listed in the reconciliations; hence, the IFRS-U.S. GAAP reconciliations were often longer than 10 pages and easily became the longest financial statement footnote.

Foreign private issuers gain benefits from complying with the SEC's high disclosure requirements. Prior literature finds that cross-listed firms have better information environments than do firms that are not cross-listed. Bailey, Karolyi, and Salva (2006) find that the increased disclosures associated with cross-listing in the U.S. explain the stronger market reactions to foreign firms' earnings announcement press releases. Lang, Lins, and Miller (2003) find that cross-listed firms have greater analyst coverage and increased forecast accuracy than other

foreign firms do, indicating cross-listed firms have better information environments. However, it is costly for firms to opt into a foreign regime and to bond themselves to a higher mandatory disclosure level and stricter enforcement. For example, to meet the reconciliation requirement, IFRS firms have to keep separate books for IFRS and U.S. GAAP and pay extra fees for auditing the reconciliation. The costs associated with the SEC's regulatory compliance (e.g., Sarbanes-Oxley and the reconciliation in Form 20-F) raise the entry barrier to U.S. capital markets and current U.S. disclosure regulations have prompted some foreign firms to delist from U.S. exchanges (Street, 2007).

In recent years, U.S. regulators have made great strides toward achieving international accounting convergence. In October 2002, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) issued a memorandum of understanding ("Norwalk Agreement"), marking a significant step toward formalizing their commitment to the convergence of U.S. and international accounting standards. Since then, the two boards have been working closely with one another to reduce the differences between U.S. GAAP and IFRS. Consequently, the FASB and IASB have eliminated several differences between IFRS and U.S. GAAP, including the accounting for inventory, asset exchanges, discontinued operations, and accounting changes (PricewaterhouseCoopers, 2009). The increasing worldwide acceptance of financial reporting using IFRS and the efforts of the FASB and IASB to converge IFRS and US GAAP have led the SEC to eliminate the IFRS-U.S. GAAP reconciliation requirement for IFRS firms in 2007.

However, elimination of the reconciliation is controversial for several reasons. First, major differences still exist between IFRS and U.S. GAAP, including revenue recognition, leases, post-employment benefits, and deferred income taxes (PricewaterhouseCoopers, 2009).

Second, research suggests that such differences between IFRS and U.S. GAAP are value-relevant. Using reconciliation disclosures of 75 EU cross-listed firms from 2004 to 2006, Henry, Lin, and Yang (2009) find significant numerical gaps between results under IFRS and U.S. GAAP despite convergence. In addition, both the shareholders' equity reconciliation and the income reconciliation are value-relevant. Gordon, Jorgensen, and Linthicum (2009) find U.S. GAAP earnings to be incrementally informative over IFRS earnings, suggesting that discontinuing the reconciliation of IFRS to U.S. GAAP reduces the usefulness of financial statements for valuation. Chen and Sami (2008) document a positive relation between trading volume and the magnitude of the earnings reconciliation from IFRS to U.S. GAAP during the period of 1995-2004. Their results suggest that investors use the reconciliation information to make decisions about their stockholdings. These findings raise concerns that eliminating the IFRS-U.S. GAAP reconciliation might reduce the information available to U.S. stakeholders, potentially adversely affecting on IFRS firms' information environments.

On the other hand, anecdotal evidence suggests that IFRS firms welcomed the SEC's decision to remove the reconciliation requirement because the reconciliation is associated with significant internal and external costs (IFRS Blog, 2009). For example, in his comment letter to the SEC, Nick Rose, the CFO of Diageo plc, said that "the proposed amendment would eliminate the burden and costs of preparing the U.S. GAAP information for foreign private issuers whose primary financial statements are prepared under IFRS." He stated that "in the year ended 30 June 2007 Diageo spent approximately 1,700 hours preparing the IFRS-U.S. GAAP reconciliations" and "to supplement Diageo's internal accounting resource, external consultants are employed at a significant cost to advise on U.S. GAAP issues" (Diageo, 2007).

2.1 Hypothesized Increase in Voluntary Disclosure

Firms trade off costs and benefits of disclosure when determining their optimal levels of total disclosure (see Leuz and Wysocki, 2008). An IFRS firm's voluntary choice to maintain a better corporate information environment by bonding to the costly U.S. mandatory disclosure level indicates that its optimal disclosure level is equal to or higher than the mandatory disclosure level before elimination of the reconciliation. If the costly IFRS-U.S. GAAP reconciliation does not contain value-relevant information, IFRS firms will enjoy the cost saving after elimination of the reconciliation without sacrificing any benefits associated with such disclosure. If the IFRS-U.S. GAAP reconciliation contains value-relevant information, eliminating the reconciliation will shift the firm below its optimal disclosure level. This shift creates an incentive for the firm to substitute with voluntary disclosure. Expanded voluntary disclosure is associated with lower information asymmetry (Coller and Yohn 1997), greater stock liquidity (Healy, Hutton, and Palepu, 1999), and lower cost of capital (Botosan 1997; Hail, 2002; Baginski and Rakow, 2012). Both enhanced mandatory and voluntary disclosures improve the information environment of these firms by attracting more U.S. institutional investors (Bradshaw, Bushee, and Miller, 2004) and mutual funds (Aggarwal, Klapper, and Wysocki, 2005).

From the foregoing discussion, I predict a positive mean shift in IFRS firms' voluntary disclosure levels after the SEC eliminated the IFRS-U.S. GAAP reconciliation. I test this directional hypothesis against a null hypothesis of no association.

H1: *IFRS firms increase voluntary disclosure after the SEC eliminated the IFRS-U.S. GAAP reconciliation.*

2.2 Hypothesized Cross-Sectional Differences in Voluntary Disclosure Incentives

The magnitude of the increase in voluntary disclosure depends on the extent to which voluntary disclosure replaces benefits associated with the IFRS-U.S. GAAP reconciliation. Given that the original purpose of the IFRS-U.S. GAAP reconciliation was to design a system that parallels the system for domestic issuers, I expect that how close an individual IFRS firm's relations with the U.S. marketplace should affect the relevance of its reconciliation. Therefore, I develop hypotheses on the determinants of cross-sectional variation in IFRS firms' voluntary disclosure changes by considering IFRS firms' relations with U.S. investors, customers, and competitors.

2.2.1 Relations with U.S. Investors

Prior literature suggests that accessing capital markets influences disclosure. Managers have incentives to keep the firm in the public eye with sufficient information on the firm's financial position to ensure access to capital markets (Gibbins, Richardson, and Waterhouse, 1990). Firms have incentives to voluntarily disclose more information to reduce information asymmetries and lower costs of capital (Diamond and Verrecchia, 1991; Baiman and Verrecchia, 1996). Also, investors demand greater disclosure by firms in which they have invested to monitor the firms' performance (Leftwich, Watts, and Zimmerman, 1981). Therefore, IFRS firms are more likely to attract investors in U.S. capital markets by complying with a higher disclosure level.

Consistent with this argument, Bradshaw, Bushee, and Miller (2002) show that foreign firms with greater levels of conformity with U.S. GAAP attract more U.S. institutional ownership. Plumlee and Plumlee (2007) document that the level of trading by U.S. investors in foreign filers is higher when the firm elects to report using U.S. GAAP instead of either IFRS or

other available GAAPs. These studies suggest that U.S. investors have a home-GAAP preference in U.S. capital markets. If so, dropping the reconciliation requirement will make IFRS firms less attractive to U.S. investors because IFRS firms will no longer provide a bridge between IFRS and U.S. GAAP. IFRS firms with more U.S. investors are more affected by elimination of the reconciliation. Hence, these firms are more likely to increase their voluntary disclosures to compensate for the lost information. I therefore test the following alternate hypothesis:

H2a: *IFRS firms with higher U.S. investor ownership are more likely to increase their voluntary disclosure after the SEC eliminated the IFRS-U.S. GAAP reconciliation.*

2.2.2 Relations with U.S. Customers

Stakeholder theory in organization management considers customers as one of the most important corporate stakeholders, and firms have incentives to address their needs (Freeman, 1984). Foreign firms may find it difficult to build stable relations with U.S. customers and to expand their share of U.S. product markets if their disclosures do not conform to U.S. practices (Khanna, Palepu, and Srinivasan, 2004). [4] Due to the geographic distances and the gaps in financial regulations and enforcement between the U.S. and foreign countries, U.S. customers may need more information to assess the long-term performance of foreign firms. Therefore, foreign firms have incentives to increase disclosure to satisfy their U.S. customers' demand. Consistent with this reasoning, Khanna, Palepu, and Srinivasan (2004) find that the foreign firms with greater interaction with U.S. product markets on average provide higher levels of mandatory and voluntary disclosures.

[4] In this study, I adopt a broad definition of the term customer, which means a company (or other entity) that buys goods and services produced by another company (or entity). U.S. customers mainly refer to U.S. companies (or entities) that consume IFRS firms' products or services in U.S. product markets.

If eliminating the IFRS-U.S. GAAP reconciliation makes the U.S. customers' assessment of IFRS firms' longer-term performance more difficult, then IFRS firms' costs of doing business in U.S. product markets increase. Using U.S. sales as a proxy for IFRS firms' relation with U.S. customer, I expect that IFRS firms with a greater proportion of their sales in the U.S. are more affected by elimination of the reconciliation. Hence, these firms are more likely to increase their voluntary disclosure to compensate for the lost information. I therefore test the following alternate hypothesis:

H2b: *IFRS firms with more U.S. customers are more likely to increase their voluntary disclosure after the SEC eliminated the IFRS-U.S. GAAP reconciliation.*

2.2.3 Relations with U.S. Competitors

Accounting theory suggests that competition among existing rivals discourages voluntary disclosure. For example, Clinch and Verrecchia (1997) show that both the range of the disclosure interval and the probability of disclosure decrease as the level of competition increases. Darrough's (1993) two-stage model of firms' incentive to disclose private information suggests that in an ex-ante setting, firms without private information about disclosure consequences are willing to pre-commit to a full disclosure policy so that they can obtain the benefits of sharing information with competitors. However, in an ex-post setting, "firms with more favorable signals are better off with disclosure, while firms with more unfavorable signals want to hide their information" (Darrough, 1993). She further points out that firms can only hide such unfavorable information when the market believes that firms do not withhold private information. Consistent with theoretical research, prior studies (e.g., Li, 2009; Bamber and Cheon, 1998) finds evidence that the quantity or quality of firms' voluntary disclosure decreases as product market competition from existing rivals increases.

While prior literature examines the association between the level of competition among existing rivals and voluntary disclosure in general, this study focuses on how competition from domestic firms affects foreign firms' voluntary disclosure practices in U.S. product markets. As discussed earlier, foreign firms pre-committed to the higher disclosure level in the U.S., and one disclosure they provided was the reconciliation to U.S. GAAP earnings. However, most foreign firms' earnings are higher under IFRS than under U.S. GAAP (Ciesielski, 2007). These IFRS firms obtain advantages over U.S. competitors by disclosing IFRS earnings alone without reconciling to U.S. GAAP earnings. IFRS firms with more U.S. competitors get more benefits from elimination of the IFRS-U.S. GAAP reconciliation. Hence, they are less likely to increase their voluntary disclosures. I state the alternate hypothesis as follows:

H2c: *IFRS firms with more U.S. competitors are less likely to increase their voluntary disclosure after the SEC eliminated the IFRS-U.S. GAAP reconciliation.*

2.3 Hypothesized Capital Market Consequences after Elimination of the IFRS-U.S. GAAP Reconciliation

In the past decade, there have been advances in research on the consequences of mandatory disclosure regulations, a literature that Healy and Palepu (2001) characterized in their survey paper as "virtually nonexistent" (Beyer, Cohen, Lys, and Walther, 2010). Part of the reason for advancement is the research opportunity offered by the passage of two major disclosure regulations, Regulation Fair Disclosure and Sarbanes-Oxley Acts, hereafter, Reg FD and SOX. Reg FD was intended to "level the playing field" between informed and uninformed investors by prohibiting managers from sharing material nonpublic information with select capital market professionals, particularly financial analysts, and/or institutional investors. SOX sets new or enhanced standards for all U.S. public company boards, management and public

accounting firms. President Bush commented that SOX is "the most far-reaching reform of American business practices since the time of Franklin Delano Roosevelt."[5] Both regulations increase mandatory disclosure requirements for publicly traded firms. Prior accounting literature related to Reg FD and SOX both suggest that the mandatory disclosure regulations affect the overall financial reporting environment of publicly traded firms in the U.S.

An important aspect of the consequences of mandatory regulation changes is the effect of the new mandatory disclosure regulations on firms' capital market conditions. Economic theory suggests that increased levels of disclosure should lower the information asymmetry component of a firm's cost of capital (Diamond and Verrecchia, 1991; Baiman and Verrecchia, 1996). Consistently, prior studies that examine the link between changes in levels of disclosure and cost of capital find that increased levels of disclosure reduce the information asymmetry component of the firm's cost of capital. For example, Leuz and Verrecchia (2000) find that German firms that have switched from the German GAAP to an international reporting regime (IAS or U.S. GAAP) experience reduced bid-ask spread and increased trading volume compared to firms employing the German reporting regime. Crawley, Ke, and Yu (2010) find that many cross-listed firms voluntarily adopt Regulation Fair Disclosure (Reg FD) and relative to non-adopters, Reg FD adopters enjoy a significant reduction in the bid-ask spread and an increase in share turnover.

Most prior studies examining the capital market consequences of mandatory disclosure changes, such as Reg FD, focus on cases where policy makers increase the disclosure requirement for publicly traded firms. However, the SEC's elimination of the IFRS-U.S. GAAP reconciliation is a unique scenario, where policy makers relax the mandatory disclosure

[5] Elizabeth Bumiller, "Bush Signs Bill aimed at Fraud in Corporations," *N.Y. Times*, July 31, 2002.

requirement for IFRS firms. In this case, firms have an option to substitute voluntary disclosure to counter potential capital market consequences of a lower mandatory disclosure requirement. Several concurrent studies investigate the capital market consequences of the SEC's elimination of the IFRS-US.S GAAP reconciliation requirement (e.g., Byard, Mashruwala, and Suh, 2010; Jiang, Petroni, and Wang, 2010; Kim, Li, and Li, 2011). The study by Kim, Li, and Li (2011) finds no evidence that eliminating the reconciliation requirement has a negative impact on IFRS firms' market liquidity or probability of informed trading. Based on their empirical results, the authors further conclude that the SEC's elimination of IFRS-U.S. GAAP reconciliation does not result in information loss or greater information asymmetry. Another study by Byard, Mashruwala, and Suh (2010) find that around FPIs' earnings announcements, information transfer from FPIs to similar U.S. firms decreased significantly, on average, after the rule change, which indicates that investors appear to find it more difficult to compare pure IFRS information to similar U.S. firms after elimination of the IFRS-U.S. GAAP reconciliation.

I argue that it is important to take into account the interactions between mandatory and voluntary disclosures when examining the capital market consequences of a decreased mandatory disclosure. The finding that IFRS firms do not experience a significant change in capital market conditions does not lend direct support to the argument that there is no information loss associated with the SEC's elimination of the IFRS-U.S. GAAP reconciliation. IFRS firms can increase voluntary disclosure to replace the disclosure benefits associated with the eliminated reconciliation and/or increase quality of mandatory disclosure (e.g., earnings quality) to mitigate the negative effect of removing the U.S. GAAP information from financial reports (Hansen, Pownall, Prakash, and Vulcheva, 2010). In both cases, the information loss due to the potential negative consequences of elimination of the IFRS-U.S. GAAP reconciliation is

mitigated by the positive consequences of increased voluntary disclosure and/or improved mandatory disclosure quality; hence, it might be difficult to find an increase in proxies for IFRS firms' cost of capital after elimination of the reconciliation. Similarly, the finding that there exists a reduction in information transfer between IFRS firms and similar U.S. firms following this rule change surrounding earnings announcement dates does not directly support a conclusion that elimination of the reconciliation reduces the available information sets to U.S. investors either. To the best of my knowledge, most IFRS firms do not provide IFRS-U.S. GAAP reconciliation in an earnings announcement press release, even before the SEC eliminated the IFRS-U.S. GAAP reconciliation. Therefore, the information loss associated with the elimination is most likely related to examining the time period surrounding the 20-F annual filing date instead of the earnings press release date. It would be more conclusive to examine capital market condition changes surrounding the 20-F filing date in order to draw a conclusion about potential information loss due to elimination of the reconciliation.

I argue that IFRS firms that voluntarily disclose more information in 20-F annual reports to replace the disclosure benefits removed by the SEC's elimination of the IFRS-U.S. GAAP reconciliation are subject to less information loss after this rule change. The cross-sectional difference among IFRS firms' voluntary disclosure changes after elimination of the reconciliation is associated with the cross-sectional variation in the capital market condition changes surrounding the issuance of IFRS firms' 20-F annual reports. Therefore, I hypothesize that:

H3: *IFRS firms that disclose more information voluntarily after the SEC eliminated the IFRS-U.S. GAAP reconciliation are less likely to experience deteriorations in their capital market conditions.*

CHAPTER 3

MEASURES

3.1 Measures of Changes in Voluntary Disclosure

Firms often voluntarily disclose qualitative information through multiple venues, which makes objective measurement of voluntary disclosure difficult. Prior research investigates voluntary disclosure in different venues, including management press releases and annual financial reports. Research also uses different proxies to measure firms' disclosures in these venues, including self-constructed scores, externally-generated scores (e.g., AIMR scores and Standard& Poor's scores), and soft information (e.g., language tone) in specific disclosures. I measure three dimensions of IFRS firms' voluntary disclosure changes: (1) information related to reconciling items included in the prior IFRS-U.S. GAAP reconciliation, (2) length of financial statement footnotes, and (3) information components in earnings announcement press releases.

The first two proxies focus on voluntary disclosure changes in annual financial reports. Although mandatory financial reporting standards such as IFRS provide detailed guidance for firms' annual financial reports, managers often enjoy considerable discretion in applying such standards. In other words, managers can use the flexibility inherent in mandatory standards to make voluntary disclosures. For example, an IFRS firm can explain an accounting method briefly or in detail depending on how much information it wants to disclose to external users. Therefore, assuming no change in mandatory disclosure, one can use changes in IFRS firms' financial reports to capture changes in voluntary disclosure under managerial discretion. IFRS

firms have to comply with the annual financial reporting requirements set forth by the SEC in Form 20-F (similar to U.S. firms' Form 10-K). I obtain IFRS firms' annual financial reports (Form 20-F) from the SEC's EDGAR database.

My first proxy for voluntary disclosure changes is the increased disclosures about prior reconciling items in the current financial statement footnotes. For each unique item listed in an IFRS firm's reconciliation in the pre-elimination year, I compare the pre- and post-elimination financial statement footnotes and count the number of increases in disclosures about prior reconciling items in the post-elimination year (Δ*Disc_Reconcile*). I record an increased disclosure about a prior reconciling item when the IFRS firms' financial reports in the post-elimination year satisfies one of the following criteria: (1) IFRS firms increase verbal descriptions (i.e., add new sentences or new words) regarding a prior reconciling item; (2) IFRS firms add new information in existing tables for a prior reconciling item (i.e., disaggregate information or additional historical data); or (3) IFRS firms add a new table regarding a prior reconciling item. Appendix A lists the most common IFRS-U.S. GAAP reconciling items. IFRS firms increase their disclosures most frequently for the reconciling items that are highlighted in Appendix A.

My second proxy for voluntary disclosure changes is the change in the page count of IFRS firms' financial statement footnotes (Δ*Disc_Page*). The page count covers the financial statement footnotes in Form 20-F (i.e., item 17 or 18). Δ*Disc_Page* equals the page count of an IFRS firm's financial statement footnotes in the post-elimination year minus its page count in the pre-elimination year. I exclude the reconciliation footnote in the pre-elimination year to make sure the Δ*Disc_Page* variable captures the changes of disclosures under the "same" mandatory

disclosure requirements.[6] I further compute changes in word and character counts in addition to page counts of IFRS firms' financial statement footnotes from the pre-elimination year to the post-elimination year for robustness tests.

My third proxy for voluntary disclosure changes is the number of voluntary information component increases in earnings announcement press releases by IFRS firms (Δ*Disc_Announce*). Prior research suggests that a firm can improve earnings usefulness by expanding voluntary disclosures in earnings announcement press releases (Francis, Schipper, and Vincent, 2002). Thus, press releases provide IFRS firms an alternative venue to maintain their overall information environments. Following Francis, Schipper, and Vincent (2002), I identify 26 key information components in firms' earnings announcement (see Appendix B). I hand-collect IFRS firms' earnings announcement press releases for both the pre- and post-elimination years and conduct a key words search to count the number of information components disclosed in each earnings press release. Δ*Disc_Announce* equals the number of information components in IFRS firms' earnings announcement press releases of the post-elimination year minus that of the pre-elimination year.

3.2 Measures of IFRS firms' relations with U.S. markets

I develop three proxies to measure IFRS firms' relations with U.S. capital and product markets. I discuss the motivations and data sources of these variables in the following sub-sections. In all cases, I collect data that represent the IFRS firms' market positions in the post-elimination year (i.e., fiscal year 2007 for most sample firms).

[6] This proxy assumes that, except for the elimination of IFRS-U.S. GAAP reconciliation, IFRS firms do not experience other mandatory disclosure changes that affect their financial statement footnotes in the post-elimination year. This assumption may not hold because IFRS remains under development. Therefore, my analysis controls for the arrival of new IFRS standards changes (described in a subsequent chapter). Even in the presence of IFRS standards changes, Δ*Disc_Page* remains a reasonable proxy in my analysis of the determinants of cross-sectional variation in voluntary disclosure changes because IFRS firms' responses to new IFRS standards are not likely affected by their relations with U.S. capital and product markets.

US_Investor. The proxy for IFRS firms' relations with U.S. investors is the percentage of outstanding common stock owned by large U.S. investors. I manually collect the percentage of ownership by large investors from Form 20-F, item 7, "Major shareholders and related party transactions." I then identify the locations of large investors' headquarters. I use the total percentage of ownership held by large U.S. investors to calculate *US_Investor*. I choose large U.S. investor ownership to proxy for IFRS firms' relations with U.S. investors because large investors have greater impact on firms' disclosure practices. I also use the percentage of outstanding common stock owned by U.S. institutional investors in robustness tests. Institutional investor holding data are available from the Spectrum S34 database.

US_Revenue. The proxy for IFRS firms' relations with U.S. customers is the ratio of U.S. sales to IFRS firms' total sales (*US_Revenue*). I search for geographical segment disclosures in IFRS firms' annual reports and manually collect their U.S. sales (I use North American region if specific U.S. data is not available). For IFRS firms that do not disclose U.S. segment sales, I assume that their U.S. sales are not material and code the *US_Revenue* as zero.

US_Competitor. My proxy for IFRS firms' relations with U.S. competitors is an indicator variable based on the percentage of U.S. firms among an IFRS firm's major competitors. I obtain each IFRS firm's major competitors from Hoover's database. I then identify the origin of each competitor by the location of the company's headquarters. *US_Competitor* equals one if IFRS firms have more major competitors from the U.S. than from all other countries and zero otherwise.

3.3 Measures of IFRS firms' information asymmetry components of cost of capital

To investigate the capital market consequences of eliminating the IFRS-U.S. GAAP reconciliation, I examine whether the IFRS firms' changes in voluntary disclosure after

elimination of the reconciliation affect their capital market conditions, such as the information asymmetry component of cost of capital. Following Leuz and Verrecchia (2000), I use bid-ask spread, trading volume, and share price volatility to measure the information asymmetry component of IFRS firms' cost of capital in the pre- and post-elimination periods.

Δ*Spread*. The bid-ask spread is defined as the average relative closing bid-ask spread from the daily CRSP in a period that begins from three days before the firm's 20-F financial annual report filing date to 30 days after its 20-F filing date. It is calculated by the absolute spread divided by the average of closing-bid and closing-ask. Δ*Spread* is the natural logarithm of the bid-ask spread in the post-elimination year minus the natural logarithm of the bid-ask spread in the pre-elimination year.

Δ*Turnover*. Trading volume is defined as the median turnover ratio in a period that begins from three days before the firm's 20-F financial annual report filing date to 30 days after its 20-F filing date. It is calculated by the number of shares traded divided by the total shares outstanding from the daily CRSP. Δ*Turnover* is the natural logarithm of the trading volume in the post-elimination year minus the natural logarithm of the trading volume in the pre-elimination year.

Δ*Volatility*. Share price volatility is defined as the standard deviation of daily stock returns in a period that begins from three days before the firm's 20-F financial annual report filing date to 30 days after its 20-F filing date. Δ*Volatility* is the natural logarithm of the share price volatility in the post-elimination year minus the natural logarithm of the share price volatility in the pre-elimination year.

I obtain data from CRSP daily stock price ("dsf") database to measure the information asymmetry variables. I hand collect IFRS firms' 20-F filing dates in the pre- and post-elimination years from the SEC EDGAR database.

3.4 Measures of Control Variables and Use of a Control Group

I control for several factors that prior research suggests are associated with changes in voluntary disclosure.

Δ*Earnings.* Miller (2002) finds that voluntary disclosure increases during periods of increased earnings and decreases when earnings decline. Therefore, I include Δ*Earnings* in the regression to control for the effect of earnings changes on disclosure. Δ*Earnings* is annual net income before extraordinary items for the post-elimination year minus net income before extraordinary items for the pre-elimination year, deflated by total assets at the beginning of the pre-elimination year.

Δ*Leverage.* I expect increased financial leverage to raise conflicts of interest between managers and debt holders. Managers then have incentives to increase disclosure to mitigate debt holders' agency concerns. I measure leverage as the firm's total liabilities divided by total assets and calculate changes in each IFRS firm's leverage from the pre-elimination year to the post-elimination year (Δ*Leverage*).

Reconcile. My analysis of the determinants of cross-sectional variation in IFRS firms' voluntary disclosure changes includes *Reconcile* to control for potential effects of prior year reconciliation adjustments on IFRS firms' voluntary disclosure practices. *Reconcile* is computed as the ratio of IFRS-U.S. GAAP earnings adjustments (IFRS earnings minus U.S. GAAP earnings) to IFRS earnings in the pre-elimination year. *Reconcile* proxies the information loss due to elimination of the reconciliation. Although each reconciling item can have information

content, adjustments with opposite signs cancel each other out. Hence, *Reconcile* is a noisy proxy for the total information content in the prior IFRS-U.S. GAAP earnings adjustments.

I obtain U.S. GAAP and IFRS net incomes for calculating *Reconcile* from IFRS firms' annual financial reports (Form 20-F) in the pre-elimination year. The data are available from the SEC's EDGAR database. The data for other control variables are from the Compustat North American database. I collect the data for Δ*Earnings*, Δ*Leverage*, Δ*Price*, and Δ*Size* to represent the IFRS firms' changes in earnings and financial leverage from the pre-elimination year to the post-elimination year. Data for Δ*Earnings*, Δ*Leverage*, and Δ*Size* are from the Compustat database and data for Δ*Price* are from the CRSP database. I winsorize all the continuous variables at the 2% and 98% levels. I also rank all the continuous variables in a robustness test. Table 3.1 provides a summary of the variables in my primary tests, variable definitions, and data sources.

Because IFRS firms might experience other exogenous shocks that could affect their disclosure practices (e.g., other mandatory disclosure changes, economy or industry-wide events). I use a difference-in-differences design to control for other exogenous factors. I measure IFRS firms' voluntary disclosure changes before elimination of the reconciliation (Δ*Disc_Page* and Δ*Disc_Announce* from t-2 to t-1, where year t is the post-elimination year for an IFRS firm). I further match each IFRS firm with a non-IFRS firm that is also cross-listed on U.S. exchanges based on firm size and industry. I measure non-IFRS firms' voluntary disclosure changes both before and after elimination of the reconciliation (Δ*Disc_Page* and Δ*Disc_Announce* from t-2 to t-1 and from t-1 to t, where year t is the post-elimination year for a

non-IFRS firm).[7] I also measure Δ*Disc_Reconcile* for non-IFRS firms in the post-elimination year.[8] Non-IFRS firms' annual financial reports (Form 20-F) are available from the SEC's EDGAR database. I hand-collect non-IFRS firms' earnings announcement press releases from firms' websites and the Factiva database. In Chapter 4 and 5, I discuss the selection process for non-IFRS firms and present my research design in more detail.

[7] I determine pre- and post-elimination years for non-IFRS firms as if the SEC's elimination of the reconciliation requirement had been applicable to them.

[8] I compare non-IFRS firms' financial statement footnotes in the pre- and post-elimination years. For the prior reconciling items for which IFRS firms increase disclosures most frequently in their post-elimination year, I check non-IFRS firms' increases in disclosures on the same items. For each non-IFRS firm, I also count its increases in disclosures on a paired IFRS firm's prior reconciling items for robustness tests.

TABLE 3.1
Variable Definitions

Variable Name	Description	Source
ΔDisc_Reconcile	Number of prior year reconciling items (see Appendix A) with increased disclosures in the post-elimination year financial statement footnotes.	Form 20-F financial footnotes
ΔDisc_Page	Number of increased pages in firm's financial statement footnotes from year t-1 to year t.	Form 20-F financial footnotes
ΔDisc_Announce	Number of information components (see Appendix B) increased in firm's earnings announcement press releases from year t-1 to year t.	Firm Web site and Factiva database
ΔDisc_Allvenues	Sum of standardized ΔDisc_Reconcile, ΔDisc_Page, and ΔDisc_Announce variables.	
ΔDisc_Report	Sum of standardized ΔDisc_Reconcile and ΔDisc_Page variables.	
IFRS	Equals 1 if the firm issues financial reports under IFRS, 0 otherwise.	Form 20-F fiscal year end and annual report filing dates
POST	Equals 1 if the firm-year observation falls in the post-elimination period, 0 otherwise.	Form 20-F fiscal year end and annual report filing dates
US_Investor	Ratio of shares held by large U.S. investor to total outstanding shares of the firm.	Form 20-F significant shareholder
US_Revenue	Ratio of sales to U.S. to total sales of the firm.	Form 20-F geographical segment disclosure and Factiva database

TABLE 3.1 Cont'd
Variable Definitions

Variable Name	Description	Source
US_Competitor	Equals 1 if the firm has more major competitors from U.S. than all other countries, 0 otherwise.	Hoover's database
ΔEarnings	(Earnings in year t – Earnings in year t-1)/Total assets in year t-1.	Compustat North America
ΔLeverage	(Total liabilities in year t/Total equity in year t)– (Total liabilities in year t-1/ Total equity in year t-1).	Compustat North America
Reconcile	(IFRS earnings in the pre-elimination year – U.S. GAAP earnings in the pre-elimination year)/IFRS earnings in the pre-elimination year.	Compustat North America
ΔSpread	The natural logarithm of the bid-ask spread in the post-elimination year minus the natural logarithm of the bid-ask spread in the pre-elimination year..	CRSP
ΔTurnover	The natural logarithm of the trading volume in the post-elimination year minus the natural logarithm of the trading volume in the pre-elimination year.	CRSP
Δ Volatility	The natural logarithm of the share price volatility in the post-elimination year minus the natural logarithm of the share price volatility in the pre-elimination year.	CRSP

Year t can be either pre- or post-elimination year.

CHAPTER 4

SAMPLE

This study requires a sample of firms that issued financial statements according to IFRS both before and after the SEC eliminated the IFRS-U.S. GAAP reconciliation requirement. I obtain my sample from three sources. First, I manually compile a list of 797 cross-listed firms from the NYSE, NASDAQ, and AMEX websites. Second, Ciesielski (2007) surveyed 130 SEC registrants using IFRS reporting in their 2006 Form 20-F filings. Third, the SEC staff commented on over 100 first-time IFRS adopters in 2006, and the links of staff comments and firms' correspondences are available on the SEC's website. From the above three sources, I identify 117 unique foreign private issuers that use IFRS before the SEC eliminated the reconciliation requirement. However, 19 of these firms were delisted from U.S. exchanges and 2 firms converted to Form 10-K firms before the implementation of the SEC's new reconciliation rule. I further remove 5 firms that are wholly-owned subsidiaries of other firms in the sample and 1 firm that cannot be linked to the Compustat North America database. These steps result in a main sample of 90 unique IFRS firms.

From the 797 cross-listed firms, I construct a control sample by selecting a non-IFRS firm for each IFRS firm based on size and industry for my analysis of IFRS firms' voluntary disclosure changes after elimination of the reconciliation. I require all the non-IFRS firms to have earnings announcement press releases available on their websites (or in the Factiva database) and to be listed in the Compustat North America database. I sort both IFRS and non-

IFRS firms into five size categories by firms' total assets (see Table 4.1). Each IFRS firm is paired with a non-IFRS firm based on two-digit SIC codes and size categories. For an IFRS firm with multiple non-IFRS firms as potential matches, I randomly select a non-IFRS firm with the same size category and two-digit SIC code as the IFRS firm. If no non-IFRS firm is in the same size category as a particular IFRS firm, I randomly select a non-IFRS firm with the same two-digit SIC code. Similarly, if no non-IFRS firm has the same two-digit SIC code as a particular IFRS firm, I randomly select a non-IFRS firm from the same or the nearest size category.

Table 4.1 compares the main sample with the control sample. Panel A of Table 4.1 presents the main and control samples' industry distributions based on the classification in Campbell (1996). The distribution of IFRS firms varies somewhat across industries. IFRS firms are concentrated in the basic, finance/real estate, and utilities industries, but are rarely seen in the construction, textile/trade, and services industries. The industry distribution of the control group is fairly similar to that of the main group. In panel B of Table 4.1, I present the main and control samples' size distributions based on IFRS firms' assets in the post-elimination year. Because 21 of the 90 IFRS firms are among the Fortune Global 100 companies for 2007, the sample IFRS firms are concentrated in the two largest size categories (i.e., 10 billion to 100 billion dollars and above 100 billion dollars). The control sample non-IFRS firms are concentrated in the middle size category and the second largest size category (i.e., 1 billion to 10 billion dollars and 10 billion to 100 billion dollars).

Table 4.2 provides the descriptive statistics of the dependent, independent, and control variables for the analysis of the determinants and the capital market consequences of cross-sectional variation in IFRS firms' voluntary disclosure changes. On average, IFRS firms increase voluntary disclosure after elimination of the IFRS-U.S. GAAP reconciliation. The

mean (median) of the change in disclosures about prior reconciling items (Δ*Disc_Reconcile*) is 2.99 (3). The mean (median) of the change in the page count of financial statement footnotes (Δ*Disc_Page*) is 5.69 (5). The mean (median) of the change in information components in earnings announcement press releases (Δ*Disc_Announce*) is 1.3 (1). However, the voluntary disclosure changes vary considerably across IFRS firms. Δ*Disc_Reconcile* has a standard deviation of 2.159, with a 25th percentile of 2 and a 75th percentile of 4. Δ*Disc_Page* has a standard deviation of 13.174, with a 25th percentile of -1.25 and a 75th percentile of 11.25. Δ*Disc_Announce* has a standard deviation of 1.472, with a 25th percentile of 0 and a 75th percentile of 2. On average, IFRS firms have over 5 percent of common stock owned by large U.S. investors and over 17 percent of these firms' total sales are from the U.S. region, indicating IFRS firms do depend on U.S. capital and product markets to some extent. Most IFRS firms (71 out of 90) have more competitors from countries other than the U.S.

On average IFRS firms experience increases in bid-ask spread and return volatility in the post-elimination year relative to the pre-elimination year, indicating increased information asymmetry. The mean (median) bid-ask spread change (Δ*Spread*) is 0.205 (0.144). The mean (median) of return volatility change (Δ*Volatility*) is 0.391 (0.447). However, on average, IFRS firms experience an increase in trading volume during the estimation periods from the pre-elimination year to the post-elimination year, indicating decreased information asymmetry. The mean (median) volume change (Δ*turnover*) is 0.412 (0.477). IFRS firms experience positive earnings growth (the mean Δ*Earnings* is 0.078) and increase their financial leverage (the mean Δ*Leverage* is 0.33) from the pre-elimination year to the post-elimination year. Consistent with prior studies, the IFRS firms' earnings are generally higher under IFRS than under U.S. GAAP (the mean *Reconcile* is 0.144).

Table 4.3 presents Spearman correlations among dependent, independent, and control variables for the analysis of the determinants of cross-sectional variation in IFRS firms' voluntary disclosure changes. The correlations among voluntary disclosure change variables are not significant, suggesting Δ*Disc_Reconcile*, Δ*Disc_Page*, and Δ*Disc_Announce* capture different dimensions of IFRS firms' voluntary disclosure changes after elimination of the reconciliation. *US_Revenue* is positively correlated with the voluntary disclosure change variables Δ*Disc_Reconcile* and Δ*Disc_Page* (=0.193 and 0.217, both p-value<0.05), which is consistent with the prediction of H2b. The positive correlations among *US_Investor*, *US_Revenue*, and *US_Competitor* indicate that IFRS firms tightly connected to U.S. capital markets are likely to have strong relations with U.S. product markets too.

TABLE 4.1
Comparison of IFRS to Non-IFRS Samples

Panel A: Industry Distribution

Industry Category	IFRS firms	Non-IFRS firms
Petroleum	9	7
Finance/Real estate	17	14
Consumer durables	7	13
Basic industry	20	19
Food/Tobacco	4	4
Construction	1	1
Capital good	3	6
Transportation	6	5
Utilities	17	18
Textiles/Trade	1	2
Services	1	1
Leisure	4	0
Total	90	90

Panel B: Size Distributions

Industry Category	IFRS firms	Non-IFRS firms
<$100million	6	8
($100million, $1billion]	5	8
($1billion, $10billion]	21	25
($10billion, $100billion]	29	32
>$100billion	29	17
Total	90	90

TABLE 4.2

Descriptive Statistics

Variables	Mean	Std. Dev.	25th Percentile	Median	75th Percentile
Voluntary disclosure changes					
ΔDisc_Reconcile	2.990	2.159	2.000	3.000	4.000
ΔDisc_Page	5.690	13.174	-1.250	5.000	11.250
ΔDisc_Announce	1.300	1.472	0.000	1.000	2.000
Relations with US markets					
US_Investor	0.053	0.074	0.000	0.000	0.109
US_Revenue	0.173	0.199	0.000	0.079	0.334
Capital market conditions					
ΔSpread	0.205	0.550	-0.150	0.144	0.432
ΔTurnover	0.412	0.561	0.051	0.477	0.777
ΔVolatility	0.391	0.405	0.098	0.447	0.622
Controls					
ΔEarnings	0.078	0.641	-0.143	0.106	0.424
ΔLeverage	0.330	1.203	-0.106	0.063	0.535
Reconcile	0.144	0.150	-0.027	0.106	0.203

(N=90)

See Table 3.1 for variable definitions.

***US_Competitor*: 1**9 IFRS firms (21%) have more competitors from U.S. product markets than from any other countries (*US_Competitor*=1); 71 IFRS firms (79%) either do not have U.S. competitors or have more competitors from countries other than U.S. (*US_Competitor*=0).

TABLE 4.3
Correlation Matrix

	ΔDisc_ Reconcile	ΔDisc_ Page	ΔDisc_ Announce	US_ Investor	US_ Revenue	US_ Competitor	ΔEarnings	ΔLeverage	Reconcile
ΔDisc_Reconcile									
ΔDisc_Page	0.021								
ΔDisc_Announce	0.004	0.023							
US_Investor	0.013	0.139	-0.047						
US_Revenue	0.193**	0.217**	0.050	0.262**					
US_Competitor	-0.084	0.069	0.003	0.203*	0.352***				
ΔEarnings	-0.176*	0.031	0.063	-0.300**	-0.161	-0.209*			
ΔLeverage	0.379***	-0.073	0.183*	-0.039	0.000	-0.145	-0.087		
Reconcile	0.091	0.175*	0.044	0.049	0.253**	0.057	0.017	-0.013	

(N=90)

, * denotes correlation significance at the 0.05 and 0.01 levels, respectively, in a two-tailed test.

See Table 3.1 for variable definitions.

CHAPTER 5

RESEARCH DESIGN AND RESULTS

5.1 Tests of H1

H1 predicts that IFRS firms increase voluntary disclosure after the SEC eliminated the IFRS-U.S. GAAP reconciliation requirement. As discussed in Chapter 3, I measure firms' voluntary disclosure changes along three dimensions: information related to prior reconciling items (Δ*Disc_Reconcile*), length of financial statement footnotes (Δ*Disc_Page*), and information components in earnings announcement press releases (Δ*Disc_Announce*). I explore the effect of the SEC's new reconciliation rule on IFRS firms' voluntary disclosure practices using the following regression models:

$$\Delta Disc\_Reconcile = \alpha_0 + \alpha_1 IFRS + \alpha_2 \Delta Earnings + \alpha_3 \Delta Leverage + \varepsilon \quad (1a)$$

$$\Delta Disc\_Page = \alpha_0 + \alpha_1 IFRS + \alpha_2 POST + \alpha_3 IFRS \times POST + \alpha_4 \Delta Earnings + \alpha_5 \Delta Leverage + \varepsilon \quad (1b)$$

$$\Delta Disc\_Announce = \alpha_0 + \alpha_1 IFRS + \alpha_2 POST + \alpha_3 IFRS \times POST + \alpha_4 \Delta Earnings + \alpha_5 \Delta Leverage + \varepsilon \quad (1c)$$

Where *IFRS* is coded as one when the foreign private issuer is an IFRS firm and as zero for a non-IFRS firm. *POST* is coded as one if the corresponding dependent variable (Δ*Disc_Page* or Δ*Disc_Announce*) measures voluntary disclosure changes after elimination of the reconciliation and as zero otherwise. The third indicator variable (*IFRS*×*POST*) captures the interaction of the first two indicators. In the regression, I further control for firms' earnings and

financial leverage changes (Δ*Earnings* and Δ*Leverage*), which, according to prior literature, may cause firms to change their levels of disclosure.

Model 1a examines whether IFRS firms increase disclosures about prior reconciling items after elimination of the reconciliation (i.e., from t-1 to t), controlling for changes in non-IFRS firms' disclosures about the most common reconciling items. Because both IFRS and non-IFRS firms must reconcile to U.S. GAAP before elimination of the reconciliation (i.e., from t-2 to t-1), it is unnecessary to measure Δ*Disc_Reconcile* before the elimination for both IFRS and non-IFRS firms. H1 predicts a positive coefficient on *IFRS* in Model 1a. In Models 1b-1c, I regress voluntary disclosure changes on all three indicator variables: *IFRS*, *POST*, and *IFRS*×*POST*. H1 predicts positive coefficients on *IFRS*×*POST* in Models 1b-1c.

Including IFRS firms' voluntary disclosure changes before elimination of the IFRS-U.S. GAAP reconciliation controls for general over time increases in voluntary disclosure. This research design also controls for the effects of any other mandatory disclosure changes (except for elimination of the IFRS-U.S. GAAP reconciliation) on IFRS firms' disclosure practices. For most firms, elimination of the IFRS-U.S. GAAP reconciliation became applicable in fiscal year 2007. Comparing disclosure requirements under IFRS before and after elimination of the reconciliation, I find only one revised standard by the IASB became effective in annual periods beginning on or after January 1, 2007. However, five new/revised standards by the IASB became effective in annual periods beginning on or after January 1, 2006.[9] Therefore, I expect disclosure changes before elimination of the reconciliation largely control for the effects of the revised standard by the IASB on firms' disclosure after elimination of the reconciliation.

[9] The most relevant mandatory disclosure changes were undertaken because the International Accounting Standard Board (IASB) revised IAS 19, "Employee Benefits," in 2004 and IAS 39, "Financial Instruments: Recognition and Measurement," in 2004 and 2005, and the revisions became effective in the annual period beginning on or after January 1, 2006. The IASB revised IAS 32, "Financial Instruments: Presentation," in 2005, and the revision became effective in the annual period beginning on or after January 1, 2007.

Using non-IFRS firms' voluntary disclosure changes both before and after elimination of the reconciliation allows me to control for the effect of contemporaneous economy- or industry-wide events on IFRS firms' disclosure practices. For example, gas prices worldwide soared during 2007 and early 2008. This sharp price increase might lead firms in the transportation industry to increase disclosures about the effect of the record-high gas prices on their financial performance. Benchmarking IFRS firms' voluntary disclosure changes with voluntary disclosure changes of non-IFRS firms in the same industry will control for such effects.

Panels A and B of Table 5.1 present results of a two-by-two analysis of firms' voluntary disclosure changes measured by changes in the page count of financial statement footnotes (Δ*Disc_Page*) and by changes in the number of information components disclosed in earnings announcement press releases (Δ*Disc_Announce*), respectively. Comparison of the two columns in Panel A shows that before elimination of the reconciliation, IFRS firms' changes in the page count of financial statement footnotes (Δ*Disc_Page*) are not significantly different from those of matched non-IFRS firms. Panel B shows that before elimination of the reconciliation, IFRS firms increase the number of information components disclosed in earnings press announcement releases (Δ*Disc_Page*) a little more than matched non-IFRS firms. However, after the SEC eliminated the reconciliation requirement, IFRS firms on average extend their financial statement footnotes by 5.69 pages and disclose 1.3 more information components in their earnings announcements. IFRS firms' increases in voluntary disclosure after elimination of the reconciliation are significantly greater than those of non-IFRS firms (t-statistics of 2.661 in Panel A and 5.187 in Panel B). Comparison of the two rows in Panels A and B shows that IFRS firms increase voluntary disclosure after elimination of the reconciliation (t-statistics of 2.096 in Panel

A and 2.170 in Panel B), whereas non-IFRS firms do not change their voluntary disclosure significantly in the same period.[10]

Panel C of Table 5.1 reports the coefficients, t-statistics, and one-tailed p-values for Models 1a-1c. Consistent with H1, IFRS firms increase disclosures about prior year reconciling items after elimination of the reconciliation (coefficient on *IFRS* = 2.733, p-value < 0.00), after controlling for changes in non-IFRS firms' disclosures about the most common reconciling items. IFRS firms also extend their financial statement footnotes after elimination of the reconciliation, after controlling for changes in the page count of financial statement footnotes made by IFRS firms before and by non-IFRS firms before and after elimination of the reconciliation (coefficient on *IFRS*×*POST* = 8.061, p-value < 0.01). Finally, IFRS firms increase the number of information components disclosed in earnings announcement press releases after elimination of the reconciliation, after controlling for information components disclosed in earnings announcement press releases by IFRS firms before and by non-IFRS firms before and after the SEC's rule change (coefficient on *IFRS*×*POST* = 0.987, p-value < 0.05).

In summary, the results in Table 5.1 suggest that elimination of the reconciliation is associated with a significant increase in the IFRS firms' average voluntary disclosure, after controlling for IFRS firms' voluntary disclosure changes before and for those of non-IFRS firms before and after the SEC eliminated the reconciliation.

5.2 Tests of H2

H2 predicts that cross-sectional variation in IFRS firms' voluntary disclosure changes depends on IFRS firms' relations with U.S. capital and product markets. To test H2, I regress

[10] As robustness checks, I also measure ΔDisc_Reconcile for each non-IFRS firm based on increased disclosures about prior reconciling items reported by its paired IFRS firm. I also replicate Model 1b with changes in word and character counts in financial statement footnotes instead of change in page count. My conclusions are robust.

three independent variables, *US_Investor*, *US_Revenue*, and *US_Competitor*, on my three voluntary disclosure change proxies of IFRS firms:

$$\Delta Disc\_Reconcile = \beta_0 + \beta_1 US\_Investor + \beta_2 US\_Revenue + \beta_3 US\_Competitor + \beta_4 \Delta Earnings + \beta_5 \Delta Leverage + \beta_6 Reconcile + \varepsilon \quad (2a)$$

$$\Delta Disc\_Page = \beta_0 + \beta_1 US\_Investor + \beta_2 US\_Revenue + \beta_3 US\_Competitor + \beta_4 \Delta Earnings + \beta_5 \Delta Leverage + \beta_6 Reconcile + \varepsilon \quad (2b)$$

$$\Delta Disc\_Announce = \beta_0 + \beta_1 US\_Investor + \beta_2 US\_Revenue + \beta_3 US\_Competitor + \beta_4 \Delta Earnings + \beta_5 \Delta Leverage + \beta_6 Reconcile + \varepsilon \quad (2c)$$

I include IFRS firms' earnings and financial leverage changes and the signed magnitude of the prior reconciliation adjustment (Δ*Earnings*, Δ*Leverage,* and *Reconcile*) as control variables. This analysis focuses on cross-sectional variation in IFRS firms' voluntary disclosure changes after elimination of the reconciliation (i.e., from t-1 to t). H2 predicts positive coefficients on *US_Investor* and *US_Revenue* and a negative coefficient on *US_Competitor*. Because IFRS firms enjoy full control over whether to adjust their voluntary disclosure practices in a single or multiple venues after elimination of the reconciliation, I do not expect the coefficients on *US_Investor*, *US_Revenue*, and *US_Competitor* to be all significant in Models 2a-2c.

Table 5.2 reports the coefficients, t-statistics, and one-tailed p-values for Models 2a-2c. Consistent with H2a, *US_Investor* is positively associated with Δ*Disc_Page* (coefficient=38.712, p-value < 0.1), indicating IFRS firms' voluntary disclosure changes in financial statement footnotes are positively associated with the proportion of the firms' shares held by large U.S. investors. However, *US_Investor* is not associated with the other proxies of voluntary disclosure

changes.[11] One potential explanation for this finding is that large U.S. investors may be sophisticated enough. In this case, IFRS firms would not need to increase their voluntary disclosures if large U.S. investors do not rely on the IFRS-U.S. GAAP reconciliation.

Consistent with H2b, the positive coefficients on *US_Revenue* in Models 2a-2b (coefficients=3.401 and 18.172, p-values < 0.05) indicate that IFRS firms with more U.S. sales are more likely to increase disclosures about prior reconciling items or to extend their financial statement footnotes after elimination of the reconciliation. Consistent with H2c, the negative coefficient on *US_Competitor* in Model 2a (coefficient= -1.197, p-value < 0.05) shows that IFRS firms facing more competition from U.S. firms are less likely to increase voluntary disclosures about prior reconciling items after the implementation of the SEC's new reconciliation rule. However, neither *US_Revenue* nor*US_Competitor* is significantly associated with the dependent variable Δ*Disc_Announce*. This result suggests that IFRS firms increase disclosures in earnings announcement press releases to improve their overall information environments rather than to satisfy specific information demand from U.S. product markets.[12]

In addition, to test the association between IFRS firms' overall voluntary disclosure changes and the extent of their relations with U.S. markets, I construct two variables, Δ*Disc_Allvenues* and Δ*Disc_Report*. Δ*Disc_Allvenues* is equal to the sum of standardized Δ*Disc_Reconcile*, Δ*Disc_Page*, and Δ*Disc_Announce*. Δ*Disc_Allvenues* measures IFRS firms' overall voluntary disclosure changes in both annual reports and earnings announcement press releases.[13] Δ*Disc_Report* is equal to the sum of standardized Δ*Disc_Reconcile* and Δ*Disc_Page*. Δ*Disc_Report* measures IFRS firms' overall voluntary disclosure changes in annual reports.

[11] This result remains unchanged if I use percentage of U.S. institutional ownership to proxy for *US_Investor*.
[12] I repeat the analysis using the ranks of the two continuous independent variables *US_Investor* and *US_Revenue*. The findings (not presented here) remain qualitatively unchanged for *US_Investor* and *US_Competitor*.
[13] I derive the standardized Δ*Disc_Reconcile*, Δ*Disc_Page*, and Δ*Disc_Announce* by subtracting the population mean from an individual raw score and then dividing the difference by the population standard deviation.

Table 5.3 presents the results. Consistent with H2b, the *US_Revenue* is positively associated with Δ*Disc_Allvenues* and Δ*Disc_Report* (p-value < 0.05 and < 0.01, respectively). Consistent with H2c, the *US_Competitor* is negatively associated with Δ*Disc_Allvenues* and Δ*Disc_Report* (p-value <0.1 and <0.05, respectively). The associations between proxies of overall voluntary disclosure changes and *US_Investor* remain insignificant.

5.3 Test of H3

H3 predicts that IFRS firms with greater voluntary disclosure increases experience less deterioration in capital market conditions after the SEC eliminated the IFRS-U.S. GAAP reconciliation. I examine capital market consequences of IFRS firms' voluntary disclosure changes after elimination of the IFRS-U.S. GAAP reconciliation by comparing three proxies of IFRS firms' information asymmetry component. They are bid-ask spread (Δ*Spread*), trading volume (Δ*Turnover*), and return volatility (Δ*Volatility*). To test H3, I split IFRS firms into upper and lower half groups based on the ranking of each IFRS firm's voluntary disclosure changes variables Δ*Disc_Reconcile* and Δ*Disc_Page*.[14]

I first examine whether IFRS firms with greater voluntary disclosure increases are less likely to experience negative impacts on capital market conditions, while IFRS firms with lower voluntary disclosure increases are more likely to suffer deterioration in capital market conditions. The results in Table 5.4 Panel A show that IFRS firms with greater disclosure increases about prior year reconciling items suffer higher bid-ask spread and return volatility in the post-elimination year (Δ*Spread* Mean=0.280, P-value = 0.001; Δ*Volatility* Mean=0.478, P-value < 0.000). IFRS firms with fewer disclosure increases about prior year reconciling items also suffer

[14] I do not divide the sample based on whether IFRS firms' changes of voluntary disclosure variables Δ*Disc_Reconcile* and Δ*Disc_Page* are positive or not, because most IFRS firms have a positive value for these two disclosure changes variables, which left the other cell without much statistic power. Because the ranking based on Δ*Disc_Reconcile* and Δ*Disc_Page* are different, the upper and lower half contain different IFRS firms in Table 5.4 Panel A and B.

higher return volatility in the post-elimination year (Δ*Volatility* Mean=0.310, P-value < 000). On the other hand, both IFRS firms with greater and fewer disclosure increases about prior year reconciling items enjoy higher trading volume in the post-elimination year (upper half IFRS firm, Δ*Turnover* Mean=0.477, P-value < 0.000; lower half IFRS firm, Δ*Turnover* Mean=0.340, P-value = 0.001).

In a comparison of the changes in capital market conditions across upper and lower half groups based on changes in disclosure about prior year reconciling items, I find no significant difference using Δ*Spread* and Δ*Turnover* as proxies for changes in IFRS firms' capital market conditions. However, inconsistent with my prediction, IFRS firms with greater disclosure increases about prior year reconciling items (upper half in Table 5.4 Panel A) suffer higher return volatility increases compared to IFRS firms with fewer such disclosure increases (lower half in Table 5.4 Panel A) (P-value = 0.080).

I follow the same steps for IFRS firms' changes in voluntary disclosure proxied by the number of pages in financial statement footnotes (Δ*Disc_Page*). The results in Table 5.4 Panel B show that both IFRS firms with higher and lower number of pages increases in financial statement footnotes suffer higher bid-ask spread and return volatility in the post-elimination year (upper half IFRS firm, Δ*Spread* Mean=0.139, P-value = 0.076; upper half IFRS firm, Δ*Volatility* Mean=0.355, P-value < 0.000; lower half IFRS firm, Δ*Spread* Mean=0.275, P-value = 005; lower half IFRS firm, Δ*Volatility* Mean=0.427, P-value < 000). On the other hand, both IFRS firms with higher and lower number of pages increases in the financial statement footnotes enjoy higher trading volume in the post-elimination year (Upper half IFRS firm, Δ*Turnover* Mean=0.341, P-value < 0.000; lower half IFRS firm, Δ*Turnover* Mean=0.490, P-value < 0.000). Consistent with my prediction, IFRS firms with greater disclosure increases in the financial

statement footnotes (upper half in Table 5.4 Panel B) suffer less increases in bid-ask spread after elimination of the reconciliation compared to IFRS firms with fewer such disclosure increases (lower half in Table 5.4 Panel B) (P-value = 0.088). However, I find no significant differences using Δ*Turnover* and Δ*Volatility* as proxies for changes in IFRS firms' capital market conditions.

Overall, there is no conclusive evidence about the capital market consequences introduced by the SEC's elimination of the IFRS-U.S. GAAP reconciliation. Two potential limitations of the above tests could affect the results. First, I do not include other controls that might affect changes in IFRS firms' information asymmetry component surrounding the implementation of the SEC's new reconciliation rule. Second, there is no control over IFRS firms' other methods in mitigating the potential negative impact of the SEC's elimination of the IFRS-U.S. GAAP reconciliation. For example, IFRS firms may increase the quality of mandatory disclosure (e.g., earnings quality) after the U.S. GAAP related information has been removed. However, it is hard to obtain a clean measure of mandatory disclosure quality changes from the pre-elimination to the post-elimination period.

TABLE 5.1
Voluntary Disclosure Changes after Elimination of the IFRS-U.S. GAAP Reconciliation

Panel A: Two-by-Two Analysis of Paired IFRS versus Non-IFRS firms

Dependent Variable: ΔDisc_Page	Pre-elimination Year	Post-elimination Year	Diff. (t-stat.)
IFRS Firms	0.01	5.69	2.096**
Non-IFRS Firms	1.59	-0.07	1.101
Diff. (t-stat.)	-0.616	2.661**	

TABLE 5.1
Voluntary Disclosure Changes after Elimination of the IFRS-U.S. GAAP Reconciliation

Panel B: Two-by-Two Analysis of Paired IFRS versus Non-IFRS firms

Dependent Variable: ΔDisc_Announce	Pre-elimination Year	Post-elimination Year	Diff. (t-stat.)
IFRS Firms	0.49	1.30	2.170**
Non-IFRS Firms	-0.26	-0.39	0.305
Diff. (t-stat.)	1.809*	5.187***	

*, **, *** denotes significance at the 0.10, 0.05, and 0.01 levels, respectively.
See Table 3.1 for variable definitions.

TABLE 5.1

Voluntary Disclosure Changes after Elimination of the IFRS-U.S. GAAP Reconciliation

$$\Delta Disc\_Reconcile = \alpha_0 + \alpha_1 IFRS + \alpha_2 \Delta Earnings + \alpha_3 \Delta Leverage + \varepsilon \quad (1a)$$

$$\Delta Disc\_Page = \alpha_0 + \alpha_1 IFRS + \alpha_2 POST + \alpha_3 IFRS \times POST + \alpha_4 \Delta Earnings + \alpha_5 \Delta Leverage + \varepsilon \quad (1b)$$

$$\Delta Disc\_Announce = \alpha_0 + \alpha_1 IFRS + \alpha_2 POST + \alpha_3 IFRS \times POST + \alpha_4 \Delta Earnings + \alpha_5 \Delta Leverage + \varepsilon \quad (1c)$$

Panel C: Pooled Regressions

	Model 1a **ΔDisc_Reconcile**			Model 1b **ΔDisc_Page**			Model 1c **ΔDisc_Announce**		
	Coeff.	t-stat.	p-value	Coeff.	t-stat.	p-value	Coeff.	t-stat.	p-value
Intercept	0.298	1.733	0.085*	1.937	1.184	0.237	-0.235	-0.908	0.364
IFRS	2.733	11.271	0.000***	-2.039	-0.885	0.377	0.710	1.948	0.052*
Post				-1.938	-0.843	0.400	-0.151	-0.414	0.679
IFRS×Post				8.061	2.481	0.007***	0.987	1.918	0.028**
ΔEarnings	-0.001	-0.207	0.836	-0.007	-1.306	0.192	0.000	-0.719	0.473
ΔLeverage	0.021	1.552	0.122	0.101	1.341	0.181	-0.003	-0.229	0.819
n		180			360			360	
Adj. R^2		41.6%			2.1%			6.1%	

*, **, *** denotes significance at the 0.10, 0.05, and 0.01 levels, respectively, p-values are one-tailed in predicted effects (coefficient on *IFRS* in Model 1a and coefficients on *IFRS×POST* in Models 1b-1c).

See Table 3.1 for variable definitions.

TABLE 5.2

Determinants of IFRS Firms' Voluntary Disclosure Changes after Elimination of the IFRS-U.S. GAAP Reconciliation

$$\Delta Disc\_Reconcile = \beta_0 + \beta_1 US\_Investor + \beta_2 US\_Revenue + \beta_3 US\_Competitor + \beta_4 \Delta Earnings + \beta_5 \Delta Leverage + \beta_6 Reconcile + \varepsilon \quad (2a)$$

$$\Delta Disc\_Page = \beta_0 + \beta_1 US\_Investor + \beta_2 US\_Revenue + \beta_3 US\_Competitor + \beta_4 \Delta Earnings + \beta_5 \Delta Leverage + \beta_6 Reconcile + \varepsilon \quad (2b)$$

$$\Delta Disc\_Announce = \beta_0 + \beta_1 US\_Investor + \beta_2 US\_Revenue + \beta_3 US\_Competitor + \beta_4 \Delta Earnings + \beta_5 \Delta Leverage + \beta_6 Reconcile + \varepsilon \quad (2c)$$

	Model 2a **ΔDisc_Reconcile**			Model 2b **ΔDisc_Page**			Model 2c **ΔDisc_Announce**		
	Coeff.	t-stat.	p-value	Coeff.	t-stat.	p-value	Coeff.	t-stat.	p-value
Intercept	2.936	4.577	0.000***	0.455	0.157	0.875	1.149	4.530	0.000***
US_Investor	-0.478	-0.117	0.954	38.712	1.424	0.079*	-1.269	-0.542	0.795
US_Revenue	3.401	2.080	0.021**	18.172	1.731	0.049**	-0.411	-0.495	0.811
US_Competitor	-1.197	-1.673	0.050**	-4.860	-0.969	0.167	0.302	0.525	0.801
ΔEarnings	-0.008	-0.785	0.436	0.855	1.179	0.242	0.250	1.006	0.159
ΔLeverage	0.017	0.917	0.363	0.219	0.324	0.747	0.264	2.123	0.038**
Reconcile	-0.018	-0.041	0.968	6.585	0.925	0.357	0.991	0.967	0.168
n		90			90			90	
Adj. R^2		1.4%			1.9%			0.6%	

*, **, *** denotes significance at the 0.10, 0.05, and 0.01 levels, respectively, p-values are one-tailed in predicted effects (coefficients on *US_Investor*, *US_Revenue*, and *US_Competitor*).

See Table 3.1 for variable definitions.

TABLE 5.3

Additional Analysis on the Determinants of IFRS Firms' Voluntary Disclosure Changes after Elimination of the IFRS-U.S. GAAP Reconciliation

$$\Delta Disc\_Allvenues = \beta_0 + \beta_1 US\_Investor + \beta_2 US\_Revenue + \beta_3 US\_Competitor + \beta_4 \Delta Earnings + \beta_5 \Delta Leverage + \beta_6 Reconcile + \varepsilon \text{ (2d)}$$

$$\Delta Disc\_Report = \beta_0 + \beta_1 US\_Investor + \beta_2 US\_Revenue + \beta_3 US\_Competitor + \beta_4 \Delta Earnings + \beta_5 \Delta Leverage + \beta_6 Reconcile + \varepsilon \text{ (2e)}$$

	Model 2d **ΔDisc_Allvenues**			Model 2e **ΔDisc_Report**		
	Coeff.	t-stat.	p-value	Coeff.	t-stat.	p-value
Intercept	-0.438	-1.597	0.114	-0.383	-1.775	0.080*
US_Investor	0.813	0.320	0.375	1.875	0.903	0.185
US_Revenue	1.603	1.677	0.049**	1.901	2.400	0.008***
US_Competitor	-0.628	-1.370	0.087*	-0.723	-1.913	0.030**
ΔEarnings	0.148	0.631	0.237	0.031	0.570	0.570
ΔLeverage	0.165	2.645	0.010**	0.005	0.415	0.679
Reconcile	0.715	1.191	0.530	0.591	1.109	0.271
n		90			90	
Adj. R^2		0.073			0.050	

*, **, *** denotes significance at the 0.10, 0.05, and 0.01 levels, respectively, p-values are one-tailed in predicted effects (coefficients on *US_Investor*, *US_Revenue*, and *US_Competitor*).

See Table 3.1 for variable definitions.

TABLE 5.4
Capital Market Consequences of IFRS Firms' Voluntary Disclosure Changes after Elimination of the IFRS-U.S. GAAP Reconciliation

Panel A: Tests on ΔDisc_Reconcile

	ΔDisc_Reconcile Upper Half (N=41)		**ΔDisc_Reconcile Lower Half** (N=44)		**Wilcoxon Signed Ranks Test**
ΔSpread	Mean: 0.280 Std: 0.514	Test Value=0 P= 0.001***	Mean: 0.104 Std: 0.453	Test Value=0 P= 0.209	P= 0.161
ΔTurnover	Mean: 0.477 Std: 0.537	Test Value=0 P= 0.000***	Mean: 0.340 Std: 0.584	Test Value=0 P= 0.001***	P= 0.118
ΔVolatility	Mean: 0.478 Std: 0.392	Test Value=0 P= 0.000***	Mean: 0.310 Std: 0.367	Test Value=0 P= 0.000***	P= 0.080*

*, **, *** denotes significance at the 0.10, 0.05, and 0.01 levels, respectively, p-values are one-tailed in predicted effects. See Table 3.1 for variable definitions.

TABLE 5.4
Capital Market Consequences of IFRS Firms' Voluntary Disclosure Changes after Elimination of the IFRS-U.S. GAAP Reconciliation

Panel B: Tests on ΔDisc_Page

	ΔDisc_Page Upper Half (N=41)		**ΔDisc_Page Lower Half** (N=44)		**Wilcoxon Signed Ranks Test**
ΔSpread	Mean: 0.139 Std: 0.508	Test Value=0 P= 0.076*	Mean: 0.275 Std: 0.589	Test Value=0 P= 0.005***	P= 0.088*
ΔTurnover	Mean: 0.341 Std: 0.551	Test Value=0 P= 0.000***	Mean: 0.490 Std: 0.568	Test Value=0 P= 0.000***	P= 0.255
ΔVolatility	Mean: 0.355 Std: 0.374	Test Value=0 P= 0.000***	Mean: 0.427 Std: 0.438	Test Value=0 P= 0.000***	P= 0.198

*, **, *** denotes significance at the 0.10, 0.05, and 0.01 levels, respectively, p-values are one-tailed in predicted effects. See Table 3.1 for variable definitions.

CHAPTER 6

CONCLUSIONS

This study investigates IFRS firms' voluntary disclosure changes in response to the SEC's elimination of the IFRS-U.S. GAAP reconciliation requirement. The empirical results show that IFRS firms increase voluntary disclosures in annual financial reports and in earnings announcement press releases to compensate for the information loss due to the implementation of the SEC's new reconciliation rule. I further examine the determinants of such increases in IFRS firms' voluntary disclosure. I find that IFRS firms with more U.S. revenue are more likely to increase voluntary disclosure, whereas IFRS firms with more U.S. competitors are less likely to increase voluntary disclosure after elimination of the reconciliation. I also examine capital market consequences of the SEC's elimination of the IFRS-U.S. GAAP reconciliation. I find IFRS firms do experience deterioration in capital market conditions in the post-elimination year. I only find some preliminary evidence that IFRS firms' increases in voluntary disclosure help mitigate negative impacts of the new reconciliation rule on IFRS firms' capital market condition.

The findings of this study are broadly consistent with the hypothesis that firms use voluntary disclosure to optimize total disclosure levels in response to a mandatory disclosure change. Therefore, eliminating mandatory disclosure requirements need not necessarily cause information loss as long as a firm's optimal disclosure level is above the mandatory disclosure level. This study suggests that when considering the consequences of a mandatory disclosure change, it is essential to take into account the interactions between mandatory disclosure and

other information sources, such as corporate voluntary disclosure. The findings are also relevant to the discussions on the potential consequences of IFRS adoption in the U.S. Domestic firms can adjust voluntary disclosure as shown in this study or adjust earnings informativeness (Hansen, Pownall, Prakash, and Vulcheva, 2010) to mitigate the effect of IFRS adoption and to maintain their optimal information environments. Moreover, this study extends the corporate disclosure literature by documenting a substitution relation between voluntary and mandatory disclosures. This study also provides evidence for a link between product markets and corporate voluntary disclosure practices, which receives less emphasis in prior literature on voluntary disclosure.

However, there are several potential limitations of my study that warrant caution when generalizing the results. First, I examine the interaction between voluntary and mandatory disclosures in a particular setting: the SEC's elimination of the IFRS-U.S. GAAP reconciliation requirement. The substitution relation between voluntary and mandatory disclosures may not hold in other settings. Second, because of data limitations, I rely on a small sample of large cross-listed foreign firms that have incentives to maintain good information environments. The finding that my sample IFRS firms increase voluntary disclosure to compensate for decreased mandatory disclosure may not hold for a group of firms with different disclosure incentives. Despite these limitations, I believe that this study provides useful evidence about the relation between voluntary and mandatory disclosures. Further work remains to be done to examine the interdependency between voluntary and mandatory disclosures in broader or different settings.

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Appendix A
Most Common Reconciling Items in Form 20-F

	IFRS-U.S. GAAP Reconciling Items:
1.	Goodwill
2.	Pension and Employment Benefits
3.	Property, Plant, and Equipment
4.	Financial Instruments
5.	Taxation Related Adjustment
6.	Business Combination
7.	Equity Investment
8.	Share-based Payment Compensation
9.	Lease Related Adjustment
10.	Subsidiaries and Joint Ventures
11.	Securities/Financial Assets
12.	Debt/Equity Adjustment
13.	Development Costs
14.	Borrowing Costs
15.	Provision
16.	Loan
17.	Revenue Recognition
18.	Foreign Currency Related Adjustment
19.	Restructuring Costs
20.	Inventory
21.	Others

Appendix A provides a list of the most common IFRS-U.S. GAAP reconciling items in the pre-elimination year for the 90 IFRS firms of my main sample. IFRS firms increased disclosure in financial statement footnotes most frequently for the 12 highlighted items in the post-elimination year.

Appendix B
Description of Coding Scheme Used to Analyze Earnings Announcement Press Releases

I.	**Nonrecurring Earnings Components**
1.	Discontinued operations
2.	Extraordinary gains or losses
3.	Unusual gains or losses
4.	Restructuring charges
5.	Asset impairments
6.	Foreign exchange gains or losses
7.	Securities gains or losses
8.	LIFO liquidations or adoptions
9.	Accounting changes
10.	Divestitures
II.	**Current and Forecast Operating Data**
1.	Orders/ contracts
2.	Shipments/production levels
3.	Capital spending
4.	R&D spending
5.	Market share
6.	Margins
7.	Cash flows
8.	Segment data
9.	New products
III.	**Detailed Financial Statements**
1.	Presence of income statements
2.	Presence of balance sheets
3.	Presence of statements of cash flows
IV.	**Executive Comments**
1.	Comments about current fiscal year that convey good news
2.	Comments about current fiscal year that convey bad news
3.	Comments about future period that convey good news
4.	Comments about future period that convey bad news