Florida International University
FIU Digital Commons

FIU Electronic Theses and Dissertations | University Graduate School

4-15-2016

The Effect of Shortened Reporting Lag on the Usefulness of Form 20-F

Zhenfeng Liu
Florida International University, new5577@gmail.com

DOI: 10.25148/etd.FIDC000791
Follow this and additional works at: https://digitalcommons.fiu.edu/etd

Part of the Accounting Commons

Recommended Citation
Liu, Zhenfeng, "The Effect of Shortened Reporting Lag on the Usefulness of Form 20-F" (2016). *FIU Electronic Theses and Dissertations*. 2530.
https://digitalcommons.fiu.edu/etd/2530

This work is brought to you for free and open access by the University Graduate School at FIU Digital Commons. It has been accepted for inclusion in FIU Electronic Theses and Dissertations by an authorized administrator of FIU Digital Commons. For more information, please contact dcc@fiu.edu.

FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

THE EFFECT OF SHORTENED REPORTING LAG ON THE USEFULNESS OF FORM 20-F

A dissertation submitted in partial fulfillment of

the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

BUSINESS ADMINISTRATION

by

Zhenfeng Liu

2016

To: Acting Dean Jose M. Aldrich
College of Business

This dissertation, written by Zhenfeng Liu, and entitled The Effect of Shortened Reporting Lag on the Usefulness of Form 20-F, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

Julia W. Chou

Jonathan A. Milian

Maria I. Vulcheva

Changjiang Wang

Steve W. Lin, Major Professor

Date of Defense: April 15, 2016

The dissertation of Zhenfeng Liu is approved.

Acting Dean Jose M. Aldrich
College of Business

Andrés G. Gil
Vice President for Research and Economic Development
and Dean of the University Graduate School

Florida International University, 2016

ABSTRACT OF THE DISSERTATION

THE EFFECT OF SHORTENED REPORTING LAG ON THE USEFULNESS OF FORM 20-F

by

Zhenfeng Liu

Florida International University, 2016

Miami, Florida

Professor Steve W. Lin, Major Professor

This study examines the impact of the Securities and Exchange Commission's (SEC) decision to accelerate the Form 20-F (20-F) filing deadline on the usefulness of 20-Fs. I find that only the large and medium firms experienced a significant increase in market reaction when they accelerated their 20-F filing deadlines to four months after the year-end, while no significant change in market reaction is detected for small firms. I also find that the market did not appear to have reacted to firms who voluntarily further shortened their 20-F reporting lag to less than four months after the year-end. Finally, I find that firms that comply with the SEC's policy to shorten the 20-F filing deadlines are more likely to restate the financial statements, but the 20-F readability and the possibility of amending their 20-Fs do not seem to be different, compared to the matched non-acceleration firms. Taken together, this study provides consistent evidence suggesting that the four-month 20-F filing deadline is beneficial for larger firms while causing no burdens to small firms, and that the accelerated 20-F filing deadline may increase the timeliness of 20-Fs at the expense of the reporting quality.

TABLE OF CONTENTS

CHAPTER PAGE

1. INTRODUCTION 1

2. REGULATION BACKGROUND 10

3. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT…….....13
3.1 Information Content.....13
3.2 Firm Size Effect ……..…….....17
3.3 Overall Reporting Quality…….....19

4. RESEARCH DESIGN 23
4.1 Event Windows 23
4.2 Event Study Method 24
4.3 Matching Method.....26
4.4 Difference-in-Differences Method.....27
4.5 Empirical Models and Control Variables 28

5. RESULTS 35
5.1 Data and Sample Selection.....35
5.2 Empirical Results 38
5.3 Additional Tests 46

6. CONCLUSION 52

REFERENCES 55

APPENDIX.....107

VITA 108

LIST OF TABLES

TABLE PAGE

1. Sample Selection……...……60

2. Descriptive Statistics of All Acceleration Firms……...…..……..62

3. Descriptive Statistics of Standard Acceleration Firms……...……...63

4. Multivariate Analysis of Market Reactions to 20-F Filings-Standard Acceleration Sample…….……...…64

5. Multivariate Analysis of Size Effect on Market Reactions to 20-F Filings-Standard Acceleration Sample…….....…70

6. Analysis of Annual Report Quality-Full Standard Acceleration Sample……..……...79

7. Analysis of Changes in Restatement-Standard Acceleration Sample by Size……...…80

8. Analysis of Changes in 20F/A Issuance-Standard Acceleration Sample by Size……..……..81

9. Analysis of Changes in Readability-Standard Acceleration Sample by Size…….……...82

10. Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 1 Acceleration Sample……..……..83

11. Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 2 Acceleration Sample……..……..89

12. Multivariate Analysis of Market Reactions to 20-F Filings-Chinese Firms Sample……..……...……..95

13. Multivariate Analysis of Market Reactions to 20-F Filings-Non-Chinese Firms Sample……101

ABBREVIATIONS AND ACRONYMS

EDGAR	Electronic Data Gathering, Analysis, and Retrieval
FASB	Financial Accounting Standards Board
FPI	Foreign Private Issuer
GAAP	Generally Accepted Accounting Principles
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
NYSE	New York Stock Exchange
SEC	Securities and Exchange Commission
SFAC	Statement of Financial Accounting Concepts

CHAPTER 1

INTRODUCTION

This study examines the impact of the Securities and Exchange Commission's (SEC) decision to accelerate the filing deadline of the Form 20-F (hereafter "20-F") on the informativeness (i.e. the ability to affect share price or trigger trading volume) and reliability (i.e. the probability of significant restatement or omissions in financial statements) of the 20-F. Similar to the Form 10-K (hereafter "10-K") of U.S. domestic firms, foreign private issuers[1] (FPIs) file 20-Fs that serve as comprehensive annual reports to the SEC. For more than 30 years, these FPIs had been allowed to file their 20-Fs to the SEC no later than "six months" after the year-end (Meek, 1983). With technology advances that enable companies to process and disseminate information more quickly, investors' ability to evaluate and react to information in a shorter timeframe, and investors' expectation to receive information on a faster basis, this "six-month" deadline was considered outdated and controversial by the SEC and investors (Choi and Meek, 2011). Effective for the fiscal year ending on or after December 15, 2011, the SEC requires all the FPIs to adopt the new "four-month" deadline for their 20-F filings (SEC, 2008), in an attempt to address the concern that unduly delayed periodic report information may reduce the value of information to investors (SEC 2005).

[1] "Foreign private issuer" generally refers to the foreign firms that are cross-listed in the U.S. market. Its definition in Exchange Act Rule 3b-4(c) is: any foreign issuer other than a foreign government, except for an issuer that (1) has more than 50% of its outstanding voting securities held of record by U.S. residents and (2) any of the following: (i) a majority of its officers and directors are citizens or residents of the United States, (ii) more than 50 percent of its assets are located in the United States, or (iii) its business is principally administered in the United States.

The 10-K and the 20-F are regarded as the most comprehensive and detailed sources of financial information available to equity investors. They often contain very important information about firm performance, financial position, cash flows, and corporate governance disclosures that is not normally available at earnings announcements. The extant literature has provided extensive evidence that 10-Ks contain information content that is useful for investors (e.g. Qi, et al., 2000; Griffin, 2003; Asthana et al., 2004; Callen et al., 2006; You and Zhang, 2009; De Franco et al., 2011; Christensen et al., 2013). However, extant literature on the information content of 20-Fs provides rather mixed results[2] (e.g. Meek, 1983; Etter et al., 1999; Olibe 2001; Chen and Sami, 2008, 2013; Kim et al., 2012), possibly because the different filing requirements and information environment between the 20-F and the 10-K result in different extent to which the investors attach importance to the information contained in the financial reports: (1) compared to the reporting deadlines of 10-Ks[3], which range from two months to three months depending on firm size, the "six-month" deadline for 20-Fs is much longer. Such a long filing delay may cause investors to search for other venues to obtain the information that is contained in the 20-F, thus making the information in 20-Fs less relevant and valuable. (2) While 10-Ks only permit U.S. Generally Accepted Accounting Principles (GAAP) reporting, 20-Fs allow the use of U.S. GAAP, International Financial

[2] Meek (1983) does not find market response to 20-K (renamed to 20-F now) releases. Etter et al. (1999) find that the market reaction to 20-Fs became significant after 1988. Chen and Sami (2008, 2013) find that income reconciliation to U.S. GAAP in 20-Fs is informative to investors, but Kim et al. (2012) do not find the elimination of reconciliation item causing information loss in 20-Fs.

[3] The deadline for filing Form 10-K is: 60 days for large accelerated filer, 75 days for other accelerated filers, and 90 days for non-accelerated filers. For further explanation of Form 10-K filing deadlines, see SEC Final Rule 33-8644 (issued on December 21, 2005), available at http://www.sec.gov/rules/final/33-8644.pdf.

Reporting Standards (IFRS), or other local GAAPs[4], creating additional barriers and uncertainty to U.S. investors when incorporating the financial information contained in 20-Fs into stock price adjustments. (3) To ensure foreign securities' accessibility to the U.S. market participants and to strengthen the competitiveness of U.S. exchanges, the SEC impose less strict[5] disclosure requirements on 20-Fs than on 10-Ks, such as requirements on segment reporting and executive compensation, thus making 20-Fs less informative than 10-Ks. (4) Since not all FPIs are domiciled in countries where English is their first language, the readability of 20-Fs may affect how accounting information and corporate disclosure are perceived by U.S. investors (Brochet et al., 2012; Lundholm et al., 2014), and how efficiently 20-F users process accounting information and disclosures (Lehavy et al., 2011). (5) Foreign firms usually suffer from the "home bias" effect, a phenomenon whereby investors allocate a higher percentage of capital to domestic firms than to foreign firms, even when this allocation is inefficient (Cooper and Kaplanis, 1994). Taken together, investors may attach less importance to the information content contained in 20-Fs than that in 10-Ks.

However, many actions have been taken to improve the information environment of FPIs in the U.S. For example, the SEC encouraged both U.S. and foreign firms to use plain English in preparing financial statements (SEC, 1998), permitted the use of IFRS as issued by the International Accounting Standard Board (IASB) in 20-F reporting without further reconciliation to U.S. GAAP (SEC, 2007), and accelerated the 20-F filing

[4] International Financial Reporting Standards (IFRS) reporting firms were required to provide a reconciliation to U.S. GAAP in the 20-F until 2007 when the SEC eliminated this reconciliation requirement. But the exemption only applied to firms using IFRS as issued by the International Accounting Standards Board (IASB). Firms using other versions of IFRS, or other local GAAPs are always required to provide a reconciliation to US GAAP in the 20-F.

[5] For example, foreign private issuers are permitted to disclose executive compensation on an aggregate basis and need not supply a Compensation Discussion & Analysis, as is required for domestic companies.

deadline to no later than four months after the year-end (SEC, 2008). However, very little is known about whether these new developments have helped improve the informativeness of 20-Fs. This study therefore empirically investigates whether the accelerated 20-F filing deadline brings net benefits (i.e. benefits minus costs) to investors by examining both the investors' responses upon 20-F releases and the reporting quality of 20-Fs following the SEC's new rule to shorten the 20-F filing deadline to four months after the year-end.

While not mutually exclusive, the relevance and reliability of financial reports are most of the time conflictive (Schipper and Vincent, 2003), and therefore shortening the reporting lag of 20-F might result in trading off reliability for relevance. On one hand, a shortened deadline for filing 20-Fs may provide investors with more timely or relevant information for their investment decision-making. On the other hand, as the 20-F filing deadline is shortened by two months, it puts financial statement preparers under greater pressure to work more efficiently while maintaining the same level of accounting and reporting quality of the 20-F. Working under such extra burden might cause the financial statement preparers to make less effort in ensuring overall 20-F quality, in terms of accounting information accuracy, disclosure quantity and quality, and the entire annual report's readability. As stated in SFAC No. 8, "sometimes, one enhancing qualitative characteristic may sometimes have to be diminished to maximize another qualitative characteristic". Dolye and Magilke (2013) document evidence that increased timeliness of 10-Ks jeopardizes the reporting reliability for certain types of firms. Therefore, shortening the 20-F filing deadline by two months might unexpectedly lead annual reports to become more erroneous, harder to read and understand, or more incomplete. As

a result, the net benefit of shortening the 20-F filing deadline becomes unclear *ex ante*. In this study, I investigate investors' responses to the change in the 20-F filing deadline, which allows me to evaluate the net benefit (or loss) of accelerating the 20-F filing deadline. In other words, a significant increase (decrease) in market reaction to 20-F releases under the new deadline should provide evidence of net benefit (loss).

In order to capture the informativeness of the 20-F after the acceleration of 20-F filing deadlines, this study uses both price and volume to measure the market reaction to 20-F releases, as there is extensive literature indicating that both price and volume can react differently to the release of information (e. g. Beaver, 1968; Kim and Verrecchia, 1991). While trading volume reflects individual investor's heterogeneous expectations based on new information by summing all market trades, security price change is a function of aggregating investors' beliefs at the market level. For example, if investors interpret a piece of information differently, those who interpret the information positively will buy the security from those who interpret the information negatively, generating trading volume reaction. However, if the adjustment of investors' beliefs are largely counterbalanced, one could not observe significant price change. As a result, market reactions using price and trading volume will generate different results. Therefore, using both price and trading volume allows me to analyze market reaction in a more comprehensive manner. In order to examine the reliability consequences of accelerating the 20-F filing deadline, I also employ a difference-in-differences method to test whether accounting quality, reporting quality, and readability are significantly different between the treatment and matched sample firms in the pre- and post-acceleration periods.

Using a matched-sample design, I first identify firms that shortened the 20-F reporting lag to four months after the year-end or even less, and then match these firms, based on industry, size, and year, to a set of firms that did not shorten their 20-F reporting lag. I then employ both level analysis and change analysis to investigate whether there is a difference in market reaction (change) between the treatment and matched (i.e. non-acceleration) sample. In the change analysis, I compute firm-level differences in the absolute value of the market reaction for each firm between the year of acceleration and the year before acceleration for both the treatment and the matched sample. Using the within-firm differences allows me to use each firm as its own control, and to mitigate concerns about potentially omitted firm-level variables.

This study finds 454 FPIs that consistently filed 20-F during 2008 to 2011, and further identifies 230 FPIs that shortened their 20-F filing deadline[6]. However, only 187 FPIs have data available for further analysis. As previously mentioned, these firms are matched with another 187 FPIs that are in the same industry, have similar total assets at the fiscal year-end, and file 20-Fs in the same time period, but did not change their 20-F deadlines during the test period. I find that most firms (159 out of 187) shortened their 20-F reporting lag from six or five months to four, three, or even two months, and 28 firms that had already been filing their 20-Fs within four months in the past also further shortened their filing deadline. In terms of timing, more than half of the acceleration firms (100 firms) made their changes in 2011 (which is the compliance deadline year) and the rest of them were early changers (31 firms in 2010; 28 in 2009; 28 firms in 2008).

[6] Slightly less than 200 firms originally voluntarily filed their 20-Fs within four months, so they might not be affected by the new SEC regulation to shorten their 20-F filing deadline further. Some firms are dropped due to sample selection criteria described in section 4. The 247 FPIs are identified before checking data availability for empirical tests.

In addition, 136 firms (72.7%) shortened their reporting lag to four months, while 51 FPIs (27.3%) further shortened the reporting lag to less than four months. In terms of firm size, most of the firms that accelerated their reporting lag are larger firms, with 45% and 34% of the acceleration firms being large accelerated filers (hereafter "large firms") and accelerated filers (hereafter "medium firms"), respectively, while only 21% of the acceleration firms being non-accelerated filers (hereafter "small firms")[7].

Because the SEC 2008 regulation only require the 20-F be filed no later than four months, to test whether the four-month deadline affect the usefulness of 20-Fs, my main sample of interest is the 136 firms that accelerated their 20-F reporting lag to four months, which comply with the SEC 2008 regulation with no further voluntary acceleration. After controlling for levels and changes in firms' financial position, accounting practice, and 20-F readability, multivariate analyses overall show that acceleration firms have significantly larger (change in) abnormal returns, but marginal (change in) abnormal trading volumes, from the pre-acceleration to the acceleration periods. I further partition the sample into small, medium and large firms and find that the larger firms experienced a significant increase in market reaction, but the small firms experienced no significant change in market reaction. This is partially consistent with the findings in Doyle and Magilke (2013) studying 10-K deadline accelerations, and the notion of "diseconomies of scale", which predicts that when all firms face the same preparation time cut, larger firms have more financial resources and better infrastructure to support the execution of shortening the 20-F filing deadline. This result is also consistent with the SEC (2008)

[7] The filer status for an Exchange Act reporting company is determined by its worldwide market value of outstanding voting and non-voting common equity held by non-affiliates, i.e. public float. Large accelerated filers have $700 million public float or more; accelerated filers have less than $700 million but no less than 75 million public float; and non-accelerated filers have less than 75 million public float.

statement that the all the firms in different sizes should have the ability to file the 20-F with a four-months deadline. Additional tests reveal that the weak abnormal return in the main test is mainly attributable to non-Chinese firms experiencing no abnormal trading volume, whereas Chinese firms experienced significant abnormal return. Further investigation also show that further shortening the filing deadline brings little to no benefit to the firms. As a whole, the market reaction analysis suggests that shortening the 20-F reporting lag benefits larger firms, and the investors have more heterogeneous interpretation on Chinese firms' 20-Fs.

The difference-in-differences tests examine whether the shortened 20-F deadline affects reporting reliability and readability, and I find that with less preparation time for 20-Fs, the acceleration firms demonstrate a significantly higher probability of issuing a restatement (6.67% higher) in the medium firms sample alone, no change in the likelihood of issuing amendments for 20-Fs, and no difference in 20-F readability, relative to the matched non-acceleration firms.

Taken together, the results in this study suggest that shortening the 20-F filing deadline has a significant impact on the relevance (informativeness) and reliability of the 20-F. The new "four-month" filing deadline appears to be appropriate for now, because any further shortened reporting lag does not seem to result in any additional net benefit. However, due to sample size limitation, whether the four month deadline could be further accelerated requires more future research with larger sample.

This study contributes to the literature in several ways. First, this study provides the first empirical evidence on the net benefit of the SEC's decision to accelerate the 20-F filing deadline. I find that large firms get net benefit from the accelerated reporting lag of

20-F, while small and medium firms do not suffer net loss, confirming the appropriateness of the four-month reporting deadline for foreign firms. However, I find that accelerating the 20-F filing deadline could entail a lower level of reliability and jeopardize the overall quality of 20-Fs for medium firms. Second, the results of this study should be of interest to the SEC when evaluating the recent heated discussion over further accelerating the 20-F filing deadline. I find that if firms further shorten the reporting lag to less than four months, the market does not reward this further acceleration, and therefore might contribute to the heated discussion now as to whether it is necessary to further accelerate the 20-F filing deadline.

The remainder of this paper is organized as follows: Chapter 2 provides institutional backgrounds of the recent SEC rule to eliminate the reconciliation from other IFRS to U.S. GAAP and shorten the 20-F filing deadline. Chapter 3 reviews the related literature and develops my testable hypotheses. Chapter 4 describes the research design. Chapter 5 discusses the sample selection and the empirical results, and Chapter 6 summarizes this study.

CHAPTER 2
REGULATION BACKGROUND

This chapter outlines the some important reporting requirements for foreign firms that are listed in the U.S. These reporting requirements are closely related to the event of interest and the variables in this study.

2.1 The acceleration of 20-F filing deadline

Beginning in 2002, the SEC started to shorten the 10-K filing deadline in an effort to improve the usefulness of periodic reports for investors (SEC, 2002). In 2005, the SEC finalized the 10-K filing deadlines to 60 days after the year-end for large firms, 75 days for medium firms, and 90 days for small firms. However, FPIs were permitted to file their 20-F no later than six months after the year-end. This deadline was established more than 30 years ago, and the original purpose of permitting FPIs to file the 20-F late was to accommodate the different disclosure and filing requirements in their home jurisdictions. As technology has advanced rapidly over the past decades, foreign firms are now able to gather and process information on a much more accelerated basis (SEC, 2008). In some jurisdictions, annual report deadlines have already been shortened to 90 to 120 days[8].

In addition, as more FPIs are reporting their financial statements in accordance with IFRS as issued by the IASB, they are no longer required to prepare a reconciliation from IFRS to U.S. GAAP in the 20-F (SEC, 2007). Before 2007, foreign firms that prepare their financial statements in accordance with accounting principles other than the U.S. GAAP must provide a reconciliation that quantifies any material differences between the

[8] For example, the annual report deadline is four months after the year-end for the European Union listed companies, 90 to 120 days for Canadian listed firms, and three months for Israeli listed firms.

amounts determined under the foreign accounting principles and the amounts that would have been resulted from U.S. GAAP. However, other foreign firms, either using their local GAAP, or using other versions of IFRS, still need to reconcile to U.S. GAAP.

As a result, the SEC changed its requirement that FPIs file their 20-Fs no later than four months after the year-end beginning for the fiscal year ending on or after December 15, 2008, although FPIs have the option to file their 20-Fs earlier than four months after the year-end. The SEC also provided a transition period of three years, which means that all the FPIs must comply with the new four-month deadline effective for the fiscal year ending on or after December 15, 2011. Although there are three deadlines for filing 10-Ks depending on the firm size, the 20-F filing deadline is fixed at four months after the year-end, regardless of firm size.

2.2 The Form 6-K requirements

The Form 6K is an SEC filing submitted to the US Securities and Exchange Commission used by FPIs to provide information that is: (i) required to be made public in the country of its domicile; (ii) filed with and made public by a foreign stock exchange on which its securities are traded; or (iii) are distributed to security holders. The report must be furnished promptly after such material is made public. This is the only information furnished by FPIs between annual reports, since such issuers are not required to file quarterly reports (Forms 10-Q) or ongoing current reports (Form 8-K).

More importantly, because there exist differences of disclosure regulations among different countries, firms from countries with less reporting requirements and firms that are solely listed in the U.S. might submit fewer 6-Ks to the SEC between 20-Fs.

Therefore, with uniform requirements for all the FPIs and mandatory deadline, the 20-F is a more important and useful venue for investors to obtain comprehensive and detailed financial and corporate governance information of the FPIs.

CHAPTER 3

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

This chapter reviews the prior literature on the information content of SEC annual reports (i.e. Form 10-K and 20-F), size effect on the market reaction to information release, and trade-off between reporting relevance and reliability, and then develops research hypotheses based on the literature.

3.1 The incremental information content of the 20-F

A firm makes an earnings announcement when the earnings are ready after the fiscal year end. The earnings announcement mainly provides a firm's performance in the past year, and is regarded as the most important information disclosure to the public. Therefore, it is not surprising that a considerable body of research find that earnings announcement is informative (e.g. Ball and Brown, 1968; Beaver, 1968; Beaver et al., 1980; Kormendi and Lipe, 1987; Bernard and Thomas, 1989). Another important financial disclosure is the annual report. While the earnings announcement focuses on reporting earnings and related information, it is typically less than 10 pages, and does not provide a full set of financial statements or notes. In contrast, the SEC annual report is typically more detailed, sometimes about several hundred pages long. It includes detailed information such as company introduction, organizational structure, executive compensation, equity, subsidiaries, audited financial statements and statements, management discussion and analysis of operation, etc. The annual reports are undoubtedly the most comprehensive financial information available to investors. The detailed financial information and corporate disclosures in the annual reports are likely to

be disclosed for the first time to the public and therefore can be used to alter market participants' belief in the firms' future performance. Therefore, when 20-Fs and 10-Ks are released to the public, one should expect that the market participants react to the information contained in the annual report by trading the securities. However, in the pre-EDGAR[9] period, previous studies generally fail to detect the market reaction to 10-Ks (e.g. Foster and Vickrey, 1978; Stice, 1991; Easton and Zmijewski, 1993) and 20-Fs (e.g. Meek, 1983; Etter et al., 1999; Olibe, 2001). Meek (1983) uses an event study method to investigate the information content of foreign firms' earnings announcement and Form 20-K (the predecessor of Form 20-F), and find that there exists price market reaction to earnings announcement but not to 20-F release. Etter et al. (1999) employ intraday trading data to examine the informativeness of the 20-F across different classes of investors, and fail to find abnormal trading activities around 20-F filing dates for sample period 1983 to 1992. However, they find some evidence that the informativeness of 20-F increased in post 1988 filings, which corresponds with a dramatic increase in the market value of the FPIs in the U.S. market. Olibe (2001) uses 1994-1996 data, which lie in the transitional period of EDGAR system phasing-in, and find that there exists unexpected returns but no corresponding market trading response. He attributes the lack of market reaction to investors' lack of easy access to the disclosures.

As a matter of fact, the failure to detect market reaction to 20-Fs and 10-Ks could be largely due to the fact that there was a significant delay in making these forms available to the public. Usually after a firm files the annual report (either a 20-F or a 10-K) to the

[9] The EDGAR system started to phase in from 1993, and all paper filings were eliminated from 1997 so that all the firms would submit electronic SEC filings through EDGAR, and the SEC filings would be free of charge, twenty-four hours after being submitted, to investors on the SEC website.

SEC, it will take about one week before the annual report is available for public access. Furthermore, the annual report is made available only in the public reading room, making it harder for common investors to access it. In the post-EDGAR era, where free online access is available for 10-K and 20-F filings one day after being filed, recent studies (e.g. Qi, et al., 2000; Griffin, 2003; Asthana et al., 2004; You and Zhang, 2009; Christensen et al., 2013) provide consistent evidence that 10-Ks provide investors with useful information and market participant trade using these pieces of information. More specifically, Callen et al. (2006) find that news about expected returns, accruals, and cash flows contribute to some of the stock price adjustments upon 10-K releases. Similarly, De Franco et al. (2011) find that detailed footnote information partially contributes to the informativeness of 10-Ks. Although there are no published studies (to the best of the author's knowledge) which directly examine the information content of 20-Fs in the post-EDGAR period, several studies examine the information content of IFRS-U.S. GAAP reconciliation in the 20-F. For instance, Harris and Muller (1999) find that Form 20-F reconciliations from International Accounting Standards (IAS) earnings to U.S. GAAP earnings are value-relevant. Henry, Lin, and Yang (2009) find that net income reconciliation from IFRS to U.S. GAAP during the period of 2004–2006 is value-relevant using a market valuation model. Chen and Sami (2008) document a significant positive relation between the magnitude of the income-reconciling amount from IFRS to U.S. GAAP and abnormal trading volume, indicating that the reconciliation item has incremental information content. In addition, Chen and Sami (2013) find that the information content of earnings reconciliation for traders is stronger for first-time IFRS users than for continuous IFRS users.

However, researchers find inconsistent results regarding the elimination of 20-F reconciliation. Jiang et al. (2010) document no changes in abnormal trading volume, abnormal return volatility, or bid-ask spread following the 20-F reconciliation elimination. Kim et al. (2012) find no evidence that reconciliation removal is negatively associated with a firm's market liquidity, probability of informed trading, or cost of equity. Based on this evidence, they conclude that the SEC's decision to end the 20-F reconciliation requirement did not result in information loss or greater information asymmetry for the affected firms. In contrast, Byard et al. (2011) find that removal of the 20-F reconciliation has a detrimental effect on affected firms' information environment in terms of information transfer.

Based on the fact that 20-Fs and 10-Ks are both comprehensive annual reports for firms listed in the U.S., and play an important role in information communication between managers and investors, and according to prior literature on 20-Fs in the pre-EDGAR period, it is reasonable to argue that 20-Fs in the post-EDGAR period may contain useful information for investors. However, unlike domestic firms that are obligated to file quarterly report "Form 10-Q" to the SEC, the FPIs are not required by the SEC to file quarterly reports. Therefore, with less relevant information about interim reports on firm performance, investors of the FPIs may face a higher degree of information asymmetry than those of the domestic U.S. firms. Compared to the 10-K, the 20-F should play an even more important role in communicating financial results and corporate disclosures with U.S. investors. I, therefore, argue that the 20-F contains useful information content.

With the assumption that 20-F is informative, the next question will be whether the informativeness will decrease as the lag between the fiscal year-end and the 20-F release date increases. Because outdated information is likely to have lower or no information value and could also mislead investors in revising the expectation of firms' intrinsic values, it is reasonable to argue that accelerating the 20-F filing deadline could significantly increase its relevance by allowing for greater use of the information on a timelier basis (Dolye and Magilke, 2013). With more timely information, investors can integrate more concurrent and extensive information to make better-informed decisions. This leads to my first hypothesis in the alternative form:

H1: The magnitude of the market reaction to the 20-F release is larger in the acceleration period than in the pre-acceleration period.

3.2 Firm size and overall benefit from shortened reporting lag

Firm size has always been an important factor when the SEC implements new corporate regulations. For example, in implementing the Section 404 (b) of the Sarbanes-Oxley Act of 2002[10], the SEC kept postponing the deadline for non-accelerated filers (i.e. smaller firms in this study) because the SEC believes that "the compliance costs are likely to be disproportionately higher for smaller public companies than larger ones", and "a deferred implementation of the auditor attestation requirement to save non-accelerated filers the full potential costs"[11]. When shortening the 10-K filing deadline in 2005, the

[10] SOX Section 404 (a) requires management of public companies to assess and report on the effectiveness of the internal control over financial reporting, and 404 (b) requires external auditor to attest to and report on the adequacy of the management's assessment of internal control over financial reporting.

[11] SEC Final Rule 33-8934 (issued on June 26, 2008), available at https://www.sec.gov/rules/final/2008/33-8934.pdf

SEC (2005) clearly acknowledges that, "Smaller companies appear to have access to fewer financial resources and less well-developed infrastructure to support the further acceleration of the reporting deadlines. For a given disclosure, diseconomies of scale may cause smaller companies to face greater costs of acceleration than larger companies." However, when shortening the 20-F filing deadline, the SEC argued that "the size of the issuer would not affect its ability to file the 20-F on an expedited basis. Rather, the issue was whether the foreign private issuer was required to prepare a second set of full financial statements in accordance with U.S. GAAP, or a reconciliation from their home country accounts to U.S. GAAP." While the second sentence in the SEC quote is plausible, in a sense that preparing for extra financial statement information will be time-consuming, there is no evidence to support its "size" argument. It is unclear why the SEC have a different view on the "size effect" on the potential cost of filing deadline acceleration for U.S. domestic firms and FPIs. Doyle and Magilke (2013) find that, when shortening the 10-K filing deadline from 90 days to 75 days, the medium firms actually experienced a significant decrease in market reaction to 10-K releases, while the large firms received no change in market reaction. But when shortening 10-K filing deadline from 75 days to 60 days, the large firms experienced a significant increase in market reaction. This finding indicates that the cost of reducing the time to prepare 10-Ks outweighs the benefit of timelier reporting for the medium firms. Similarly, the small firms may be more likely to experience a net loss after the 20-F filing deadline was shortened to four months after the year-end[12]. This leads to my second hypothesis in the alternative form:

[12] According to SEC (2005) final rules, small firms do not need to accelerate their 90 days 10-K filing

H2: Accelerating the 20-F filing deadline results in less overall usefulness to investors for smaller firms.

3.3 Overall 20-F quality after the accelerated filing deadline

As clearly discussed in the FASB Conceptual Framework, the qualitative characteristics of information, i.e. reliability and relevance, are important to financial reporting quality. Reliability addresses how financial information users can rely on it to be materially accurate, how faithful it represents the information, and how it can be verified and used consistently. Relevance addresses how financial information helps users to make appropriate decisions pertaining firm future performance, or confirming or correcting past decisions they have made. Standard setters, such as the SEC, FASB, and IASB, believe that reliability and relevance are both necessary for financial information to be useful for decision making, and have been trying to increase the quality of both. Reliability and relevance have been extensively studied in the accounting literature. Most of the accounting research, however, focus on the reliability and relevance of accounting measurements (e.g. Schipper 2003; Dye and Sridhar 2004; Kadous et al., 2012; Zhang, 2012). They argue that reliability and relevance of accounting measures are either inversely or directly related. The relation between reliability and relevance of financial reporting as a whole, however, is not well studied. In a similar setting to this study, Doyle and Magilke (2013) find that when large firms shorten their 10-K filing deadline from 75 days to 60 days, the reporting quality significantly increases, but when medium firms shorten their 10-K filing deadline from 90 days to 75 days, the reporting quality

---

deadline. Therefore, Doyle and Magilke (2013) do not study small firms in their paper.

significantly decreases. Their results show that the decision by the SEC to shorten the filing deadline for 10-K reporting firms causes different effects on the reporting reliability. In other words, whether there necessarily is a trade-off between relevance and reliability depends on the cost and benefit of more timely accounting information.

For the setting of this study, a shortened 20-F filing deadline increases the timeliness, and therefore the relevance of the financial information, but meanwhile, taking two months away from the foreign firms' financial reporting preparation may have a negative impact on the quality of financial statement and the audit process for the following reasons. First, to meet a tighter filing deadline, firms might choose to reduce their disclosure to the minimum amount of the information required by the SEC and subsequently submit other voluntary disclosures through the Form 6-K. Second, firms might choose to meet the deadline at the expense of the accuracy of accounting information. Third, firms might make errors if they are under pressure to meet the new filing deadline and do not have sufficient time. Fourth, the external auditors might overlook some potential issues in financial statements and the internal control system, causing potential misstatement in the audit opinion. All the above potential drawbacks could cause subsequent restatements or submissions of Form 20-F/A[13], leading to the following hypotheses in the alternative form:

H3a: The accelerated 20-F filing deadline results in higher possibility of issuing restatement and amendment to 20-F;

[13] Form 20-F/A is an amendment to Form 20-F.

In recent years, researchers begin to put more emphasis on another qualitative characteristic of annual report quality-the readability (Li, 2008; You and Zhang, 2009; Miller, 2010; Lehavy et al., 2011; Loughran and McDonald, 2011; Lundholm et al., 2014). They argue that less readable annual report is more difficult to interpret and process by investors because it requires that investors devote more time and effort to identify and extract information, and they find that readability is positively related to firm performance and efficiency of market response to the disclosure. Therefore, the readability is an important quality element of annual reports, in terms of how effective the firms can communicate its financial information with the investors. Different from 10-Ks, which are generally prepared by native speakers of English in the U.S., 20-Fs are prepared by foreign issuers who may speak a different language (Lundholm et al., 2014), and therefore might require some translation. Due to linguistic complexity, the complicated translation process might result in potential information loss and lower clarity of the disclosure, i.e. lower readability. Therefore, readability may play a more critical role in 20-F disclosure quality than in 10-K disclosure quality.

With less time to prepare for the financial reporting due to the accelerated 20-F filing deadline, by the similar reasoning on the reporting reliability in H3a, it is plausible to argue that the foreign firms might less time and largely ignore the readability issues. In terms of priority, firms would focus more on reliability issues to avoid subsequent restatements or amendments, because lower readability does not necessarily irritate the SEC and results in a subsequent revision of the 20-F. Therefore, the less attention on the readability might lead to lower readability.

However, one can also argue that the acceleration of filing deadline might not cause lower readability. First, foreign firms might have long been hiring fluent English professionals to prepare 20-Fs and therefore does not have a issue with complex translation. Second, as most parts of the 20-F remain the same over the years of reporting, foreign firms might just use previous year's 20-F as the template, and just replace old numbers with updated numbers, and follow the same sentence patterns to make new corporate disclosures. If these reasons are the real case for the foreign firms, then I expect no change in readability of 20-Fs. Therefore, it is an empirical question whether the readability is lower after firms shorten their reporting lags. I posit my hypothesis in the alternative form:

H3b: The accelerated 20-F filing deadline results in lower readability.

In the next Chapter, I discuss the research design that is used for the empirical tests in this study.

CHAPTER 4
RESEARCH DESIGN

4.1 Event windows

I follow the traditional event study design to investigate the short-term market reaction around the filing date of 20-Fs. To explore investors' reaction to 20-F releases, I employ different test windows, i.e. windows (0, +2), (0, +3), (0, +4), (-1, +2), (-1, +3), and (-1, +4), to capture the market reaction around the filing date. Each day in the test windows are trading days excluding weekends, holidays, and other circumstances when the stock market is closed. These windows take into account the information leakage, and the delay of the 20-F made available to the public. Since prior literature starting from Ball and Brown (1968) has confirmed the information leakage before earnings announcement, I start trading windows with day -1. As a matter of fact, even if a firm submits its 20-F filing document to the SEC on day 0, it takes the SEC less than 24 hours[14] to process the document before it is released to the public on EDGAR. That means day 0 might not be the first day that the investors trade on the information in the 20-F. Furthermore, as is observed from the data, a significant amount of the firms file their 20-Fs late in the afternoon, when the stock market has already closed. Therefore, if the SEC spends 24 hours to make 20-Fs public, the public will be trading on the information contained in 20-Fs two days later. For example, if firm ABC files its 20-F on day 0 at 6:29 pm, and the SEC makes the 20-F public on day +1 at 6:00 pm, the stock market is closed on day +1. The earliest that the investors can trade on the 20-F information will be on day +2 when the stock market opens in the morning. All the discussion above taken together, day -1,

[14] Ideally, the EDGAR system ensures 24 hours maximum of processing before accepting a filing and making it public on the EDGAR system.

day 0, and day +1 could all possibly be the days that the 20-F information is not being traded on. I thus included day +2, day +3 and day +4 in the trading windows as the days that the 20-F information may being traded on.

4.2 Event study method

I employ both price and volume to measure the market reaction to 20-F releases, as there is extensive literature indicating that both price and volume can react differently to the release of information[15] (e. g. Beaver, 1968; Bamber, 1987; Kim and Verrecchia, 1991). Although one can expect both price and trading volume reaction upon information release, one should also expect the fact that there might be trading volume reaction but no price reaction, or there might be price reaction but no trading volume reaction. This is because although both price and trading volume might reflect the same underlying economic factors, they might capture different levels of investors' responses. Trading volume reflects individual investor's heterogeneous expectations based on new information by summing all market trades, whereas security price change is a function of aggregating investors' beliefs at the market level. For example, if investors interpret a piece of information differently, then trading volume might be high. Those who interpret the information positively will buy the security from those who interpret the information negatively. However, if the adjustment of investors' beliefs are largely counterbalanced, one could not observe significant price change. As a result, trading volume analysis captures more of the value of this piece of information but price change analysis cannot.

[15] The following discussion on price and trading volume reaction builds on the literature.

Holthausen and Verrecchia (1990) provide a view that new information has both informedness and consensus effects. Informedness effect captures the extent to which the investors receive new useful information, and consensus effect captures the extent to which the investors agree with each other at the time of information release. Both price change and trading volume change are affected by the direction of changes in informedness effect and consensus effect. Therefore, it is not surprising that previous research has documented differences between price and trading volume reactions to earnings announcement, 10-Ks, and 20-Fs.

Since the hypothesis in this study is concerned with the magnitude (rather than the direction) of market reaction to the release of the 20-F, my measure of price response should ignore the sign of the returns in the test windows. Following Doyle and Magilke (2013), I use the absolute value in my price measure. I develop the following two measures of market response to evaluate the impact of the filing of form 20-F, which I then evaluate over the trading windows specified above.

My first measure is commonly used cumulated abnormal return (CAR), following Doyle and Magilke (2013). I calculate abnormal return using the market model below:

$$RET_{j,t} = \alpha_j + \beta_j \times RET_{m,t} + \varepsilon_{j,t} ,$$

where RET is the daily raw return of the firm; RET_m is the return on the equally weighted U.S. market index; and subscripts j and t refer to firm and day, where $t=0$ is set as the 20-F release day. The coefficients $\hat{\alpha}_j$ and $\hat{\beta}_j$ are the parameter estimates using the OLS

during the estimation period (from day -260 to day -11[16]). The abnormal return for the jth firm on day t is as follows:

$$AR_{j,t} = RET_{j,t} - (\hat{\alpha}_j + \hat{\beta}_j * RET_{m,t}).$$

I then construct cumulative abnormal return for each 20-F filing date by cumulating the daily abnormal return using various test windows (0, +2), (0, +3), (0, +4), (-1, +2), (-1, +3), and (-1, +4), computed as follows:

$$CAR_{(m,\ n)} = \sum_{t=m}^{n} AR_t$$

where m is the starting day of the trading windows, and n is the ending day.

My second measure is the abnormal trading volume (AVOL) measure developed in Asthana and Balsam (2001). I calculate abnormal volume using the following formula:

$$AVOL = \left(\frac{VOL - \mu(VOL)}{\sigma(VOL)}\right),$$

where VOL is the daily trading volume, measured in shares, and μ and σ are the mean and standard deviation, respectively, during the non-filing period, which I follow Asthana and Balsam (2001) and define as window (-49, -5).

4.3 Matching method

The purpose of this study is to find that the market reaction pattern is significantly different between firms that shortened their reporting lag (hereafter, "acceleration firms") and firms that did not shorten their 20-F reporting lag (hereafter, "non-acceleration

[16] I require that only firms with at least 30 days of stock return data prior to the event date are included in this test.

firms"). I also control for other factors that could have affected the market reaction to ensure that the difference is solely attributable to the acceleration of reporting lag. Therefore, in this study, I follow Doyle and Magilke (2013) and employ a one-to-one matching design to generate the control group for comparison purpose. I first identify all the acceleration firms, and then match each one of these firms, based on industry, size, and year, to a non-acceleration firms, generating a set of non-acceleration firm sample which contains the same amount of firms as is in the treatment sample (i.e. the acceleration firms sample). If the best matching firm's size is larger than twice the size of the acceleration firms, or smaller than half of the acceleration firm, I delete this pair of matching. Comparing the market reaction patterns between the two samples allows me to draw conclusions on whether shortening the 20-F reporting lag actually cause different market reactions between the two groups.

4.4 Difference-in-differences method

In order to examine the consequences of accelerating the 20-F filing deadline, I employ a difference-in-differences method to test whether accounting quality, reporting quality, and readability are significantly different between the treatment and matched sample firms in the pre- and post-acceleration periods. For both groups, I first calculate the within-group difference of market reactions in the pre- and post-acceleration periods, and then compare the difference between the above two within-group differences. This difference-in-differences allows me to access whether shortening the 20-F reporting lag causes significant different reporting quality change.

4.5 Empirical models and control variables

H1 predicts that market reaction magnitude is larger after the firms shorten their 20-F reporting lags. I develop two empirical models to test this hypothesis.

Following Qi et al. (2000), Griffin (2003), and Christensen et al. (2013), I first conduct a level analysis on firms' market reaction. I investigate whether, among all the other control variables that might cause differences of market reaction, shortening the 20-F reporting lag would also drive the difference in the magnitude of market reactions. The model is specified as follows:

$$\begin{aligned} MKT = {} & \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability \\ & + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals \\ & + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry \\ & + \Sigma\, year + \varepsilon. \end{aligned}$$

In the above model, *MKT* is the proxy for the magnitude of market reaction. It is measured by either the absolute value of *CAR* or *AVO*L. *SHORTEN* is the main independent variable that this study focuses on. *SHORTEN* takes the value of one if the firm is in the acceleration group, and zero if the firm is in the matched non-acceleration group; *Reconcil* indicates whether a firm provides the reconciliation from other GAAPs to U.S. GAAP. It takes the value of one if the firm provides reconciliation item, and zero otherwise. Since Olibe (2001), Chen and Sami (2008, 2013), and Byard et al. (2011) find that the reconciliation disclosure is informative for investors, I expect to find larger magnitude of market reaction around 20-F release for firms that provide reconciliation

items. *Assets* is controlling for firm size, and is calculated as the logged total assets at the year-end. Atiase (1985), Bamber (1987), and Freeman (1987) find that compared to large firms' announcements, smaller firms are less likely to have information available from alternative sources, and thus small firms' announcements convey more unexpected information and are associated with larger magnitude of market reaction. Therefore, I control for firm size to exclude the possibility that the results are purely driven by firm size. *Readability* indicates for the readability of the 20-F. I control for *Readability* because Brochet et al. (2012) and Lundholm et al. (2014) find that the readability of 20-Fs affects the market reaction to the financial reports by the FPIs. Following previous research (e.g. Li, 2008; Lehavy et al., 2011), *Readability* is measured using the traditional FOG Index method:

$$FOG = (words\ per\ sentence + percent\ of\ complex\ words) * 0.4$$

A complex word is defined as one with three or more syllables. A FOG larger or equal to 18 indicates that the text is unreadable; a FOG between 14 and 18 means the text is difficult to comprehend; a FOG between 12 and 14 is the ideal readability; a FOG between 10 and 12 is acceptable; and a FOG between 8 and 10 means the reporting language is childish. In other words, FOG is negatively related to readability. *HomeReport* indicates whether the firm has released an annual report in its home country before the firm releases the 20-F. By the SEC regulation, if a firm releases its annual report in its home country, the English version of the same report should be furnished to the SEC promptly as Form 6-K after the home country report release. In most of the cases, the main differences between the home country annual report and 20-F are: (1) if any, the numbers reported under different GAAPs; and (2) the additional disclosure required by

the SEC but not by the home country security exchange supervising body. In other words, the home country reports cover most of the important information pertaining to the firm performance and corporate governance, except for reconciliation items and additional disclosure only required by the US SEC. Therefore, if a firm has released a home country report before the 20-F, most of the information has already been traded on around the home country report release date (i.e. 6-K release date), and the market reaction will be much lower around the 20-F release date, compared to firms without home country reports[17] before the 20-F release. *HomeReport* takes the value of one if the firm has released its home country report before the 20-F release, and zero otherwise. Therefore, *HomeReport* is expected to be negatively associated with *MKT*. To control for firm risk, the conservatism of the accounting system, and the effect of future growth opportunity, I include *Leverage* as the ratio of total liability to total assets, and *MTB* as the market-to-book value, calculated as the ratio of market value to book value (Asthana et al., 2004). Following Doyle and Magilke (2013), I also include the following variables to control for firm financial performance factors: *Accrual* indicates total accruals, and is measured as income before extraordinary items minus operating cash flows, scaled by average total assets (Hribar and Collins, 2002); *AuditFee* indicates the total audit fees, and is measured as total audit fees scaled by average total assets. Because the above two items are normally not disclosed at earnings announcements, but are first disclosed in 20-Fs, investors are likely to react to this new information, causing change in the market

[17] About 20% of the sample firms have the home country annual reports before the 20-F filing. The rest of the sample firms either have their home country annual reports after the 20-F filing, or have no listing in their home countries. It is common that a foreign firm only list in the United States but nowhere else. For example, in China, a firm must incur at least three years of net income to be eligible to be listed in the Shanghai Stock Exchange or the Shenzhen Stock Exchange. Such a harsh requirement drove most of the Chinese firms to seek listing outside the Mainland China stock markets.

reaction. *SpecialItems* indicates special items in the income statement, and is calculated as special items scaled by the average total assets. *ROA* indicates the profitability of current fiscal year, and is calculated as net income scaled by the average total assets. *Sales* indicates the firm performance, and is calculated as total revenue scaled by the prior year's revenue. I also include control variables for industries and years, as is regular practice in most accounting research.

One drawback of the level analysis is the concern about potentially omitted firm-level control variables. Following Doyle and Magilke (2013), I also employ a change analysis to investigate whether there is a difference in market reaction change between the treatment and matched (i.e. non-acceleration) sample. In the change analysis, I compute firm-level differences in the absolute value of the market reaction for each firm between the year of acceleration and the year before for both the treatment and the matched sample. Using the within-firm differences allows me to use each firm as its own control, and to mitigate concerns about potentially omitted firm-level variables. The model is specified as follows:

$$\begin{aligned}\Delta MKT = {} & \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accrual + \alpha_5 \times \Delta AuditFee \\ & + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales \\ & + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon\end{aligned}$$

In this model, the new variables are defined as follows: *ΔMKT* is the difference between current year *MKT* and previous year *MKT* for both the acceleration firms and the matched non-acceleration firms, with *MKT* equal the absolute value of either *CAR* or

AVOL. *LoseReconcil* indicates whether a firm stopped disclosing the IFRS-U.S. GAAP reconciliation in compliance with SEC regulation (SEC, 2007). Since Chen and Sami (2008, 2013) find that the IFRS to U.S. GAAP reconciliation disclosure is informative for investors, elimination of this reconciliation might cause information loss and result in a reduction in the magnitude of the market reaction; *ΔAccrual* is the change in *Accrual*; *ΔAuditFee* is the change in *AuditFee*; *ΔAssets* is the change in *Assets*; *ΔSpecialItems* is the change in *SpecialItems*; *ΔROA* is the change in *ROA*; *ΔSales* is the change in *Sales*. *ΔReadability* is the change in *Readability*. All differences are then winsorized at the bottom 1% and top 99% level to minimize the influence of extreme observations.

HomeReport1 is a dummy variable that takes the value of one when a firm released a home annual report before 20-F release in the previous year but not in the current year, and zero otherwise; *HomeReport2* is a dummy variable that takes the value of one when a firm released a home annual report before 20-F release in the current year but not in the previous year, and zero otherwise; The reason I create these two control variables to control for home country report effect is that, while most companies are consistent with their routine of releasing home country report before 20-F release (i.e. either consistently no home country report, or consistently releasing home country report), some firms release home country annual reports before releasing 20-F in either the current year or the previous year, but no such case in the other year. With the discussion on the control variable *HomeReport* in the level analysis model, if *HomeReport1* is 1, the *MKT* in the previous year will be smaller, while the *MKT* in the current year is the same, causing *ΔMKT* to be larger; if *HomeReport2* is 1, the *MKT* in the previous year will be the same, while the *MKT* in the current year will be smaller, causing *ΔMKT* to be smaller.

Therefore, *HomeReport1* is expected to be positively associated with *ΔMKT*, and *HomeReport2* is expected to be negatively associated with *ΔMKT*. As usual, year effect is also controlled in this model. Because I match firms by industry, using within-firm differences, I do not have to control for industry in this change analysis model.

To test H2, I construct three binary variables to capture the effect of filing deadline acceleration on firms with different sizes, i.e. small firms (*Small*), medium firms (*Medium*), and large firms (*Large*), using the medium firms as the comparison basis. I add two of the three binary variables (to avoid multicollinearity problem) in the two models that test H1, and also include three interaction items *SHORTEN*Small*, *SHORTEN*Medium*, and *SHORTEN*Large* to test whether the slope of *SHORTEN* will changes depending on firm size. The models to test H2 are as follows:

$$
\begin{aligned}
MKT = {} & \alpha_1 + \alpha_2 \times Small + \alpha_3 \times Large + \alpha_4 \times SHORTEN*Small + \alpha_5 \times SHORTEN*Medium \\
& + \alpha_6 \times SHORTEN*Large + \alpha_7 \times Reconcil + \alpha_8 \times Assets + \alpha_9 \times Readability \\
& + \alpha_{10} \times HomeReport + \alpha_{11} \times Leverage + \alpha_{12} \times MTB + \alpha_{13} \times Accruals \\
& + \alpha_{14} \times AuditFee + \alpha_{15} \times ROA + \alpha_{16} \times Sales + \alpha_{17} \times SpecialItems + \Sigma\, industry \\
& + \Sigma\, year + \varepsilon.
\end{aligned}
$$

$$
\begin{aligned}
\Delta MKT = {} & \alpha_1 + \alpha_2 \times Small + \alpha_3 \times Large + \alpha_4 \times SHORTEN*Small + \alpha_5 \times SHORTEN*Medium \\
& + \alpha_6 \times SHORTEN*Large + \alpha_7 \times LoseReconcil + \alpha_8 \times \Delta Accrual + \alpha_9 \times \Delta AuditFee \\
& + \alpha_{10} \times \Delta Assets + \alpha_{11} \times \Delta SpecialItems + \alpha_{12} \times \Delta ROA + \alpha_{13} \times \Delta Sales \\
& + \alpha_{14} \times \Delta Readability + \alpha_{15} \times HomeReport1 + \alpha_{16} \times HomeReport2 + \Sigma\, year + \varepsilon
\end{aligned}
$$

where *Large* takes the value of one for the large firms, and zero otherwise; *Medium* takes the value of one for the medium firms, and zero otherwise; *Small* takes the value of one for the small firms, and zero otherwise.

To test H3, I perform a difference-in-differences analysis on the likelihood of a restatement, the likelihood of issuing a 20-F/A, and the 20-F readability.

In the next chapter, I discuss the sample selection criteria and data items used for the empirical study, and report the results from the empirical study.

CHAPTER 5
RESULTS

5.1 Data and Sample Selection

The sample period covers 2008-2011 because the SEC required all the FPIs to follow the new four month filing deadline starting from the fiscal year ending on or after December 15, 2008. The SEC also provided a transition period of three years, which allowed FPIs to comply with this new rule effective for the fiscal year ending on or after December 15, 2011.

I obtained 20-Fs, 20-F/As, 6-Ks, 20-F file size, and 20-F filing dates from EDGAR; daily trading volume, stock returns, and index data from CRSP; firm financial data from COMPUSTAT; and firm major operation country[18], U.S. filer status, audit fees, accounting standards, and restatement data from Audit Analytics.

Sample firms were initially obtained from the SEC's official annual summary of "International Registered and Reporting Companies".[19] This study focuses on the FPIs listed on either the NASDAQ or the NYSE because these firms are subject to the new 20-F filing deadline requirement. As a result, I excluded Canadian firms[20], over-the-counter firms[21], and debt issuing firms in the SEC official FPI list, and identified 454 firms that had filed 20-Fs during the test period. To be classified as an acceleration firm, the

[18] Many FPIs are registered in tax-free areas such as Cayman Islands, Bermuda, and Marshall Islands, but have their major business and operation in a specific country. However, several firms are registered in such area but have similarly-weighted operations in several countries. In this situation, I identify these firms' main operation country as the registration country.

[19] For more information, visit https://www.sec.gov/divisions/corpfin/internatl/companies.shtml.

[20] Due to the similarity between U.S. firms and Canadian firms, and the special filing requirements for Canadian firms, I excluded Canadian firms from my final sample.

[21] Over-the-counter firms are not required to file Form 20-F. However, many firms do voluntarily file this form, but the SEC has no requirement on their 20-F filing deadline.

reporting lag for a firm should reduce by at least 20 days[22]. I also deleted firms with increased reporting lags for at least 20 days, unusual patterns of reporting lag change (e.g. reporting lags are 4, 6, and 4 months after the year-end in three consecutive years, respectively), and firms that filed Form NT 20-F[23]. Table 1 Panel A shows that 230 and 855 firm years are classified as the acceleration and non-acceleration firms, respectively. Non-acceleration firms are firms with their 20-F reporting lag change by less than 20 days.

Panel B shows the sample selection procedure. For the acceleration firms, only 187 firm-years (out of 230 firm years) have market and accounting data available. Around half of these firms early adopted the new deadline policy in 2008, 2009, and 2010, while the rest of the firms complied with the new deadline in 2011. After matching[24] the acceleration firms with the non-acceleration firms by industry, firm size, and year, I obtained 187 pairs of firm-years[25] that are used for the main empirical tests in this study, as shown in Panel C.

Panel D shows the geographic distribution of the 187 acceleration firms. It shows that 50 firms (29.41%) are from China, 21 firms (11.23%) are from Israel, 13 firms (6.95%) are from Greece, 13 firms (6.95%) are from Mexico, 10 firms (5.35%) are from

---

[22] Although arbitrary, the 20 day threshold seems reasonable because many firms do not wait until the end of the month to file their 20-Fs. For example, a firm may accelerate its filing date from May 20th to April 30th to comply with the new policy. It is reasonable to consider this firm as an acceleration firm.

[23] Form NT 20-F is the "Notice under Rule 12b25 of inability to timely file all or part of an annual report of Form 20-F". Firms that are not able to timely file 20-F should file the NT 20-F by the 20-F deadline, and SEC allows only 15 extra days for firms to submit the 20-F.

[24] The underlying logic for matching acceleration firms to non-acceleration firms is explained in the research design section.

[25] A firm can be classified as "acceleration firm" in multiple years. For example, if the reporting lag for a firm is 6, 4, and 3 months in 2008, 2009, and 2010, respectively, it is classified as "acceleration firm" in both 2009 and 2010. Therefore, instead of "single firms", the objects of interest in the final sample are "firm-years".

Chile, and the rest of 65 firms (52.21%) are from other countries. It is not surprising to see a large number of Chinese firms in the sample, because Chinese domestic capital market has very strict requirements for the initial listing. As a result, the U.S. capital markets have become one of the most popular places for Chinese companies to raise capital overseas. In fact, most of the Chinese firms (47 firms, 85.45%) in the sample are solely listed in the U.S. capital markets.

[Insert Table 1]

Table 2 Panel A provides all types of reporting lag accelerations. 100 out of 187 firms (53.48%) with their reporting lags shortened from six months to four months, and 36 firms (19.25%) with their reporting lags shortened from five months to four months. In total, 136 firms (72.73%) are regarded as the standard acceleration firm sample that is the main sample of this study. Moreover, 23 firms (12.30%) with their reporting lags shortened from more than four months to less than four months. The rest 28 firms (14.97%) originally had reporting lags of four months or less before the SEC 2008 regulation came into effect. These firms further shortened their reporting lags by at least 20 days. In total, there are 51 firms that voluntarily shortened their reporting lags to less than four months after the fiscal year end. Table 2 Panel B shows that 100 firms (53.48%) shortened their reporting lags in 2011, while the remaining 87 firms (46.52%) voluntarily shortened their reporting lags before 2011. Panel C classifies the acceleration firms by the firm size. It shows that 84 out of 187 firms (45%) are large firms, 64 firms (34%) are medium firms, and only 39 firms (21%) are small firms. Overall, it appears that the majority of the acceleration firms are larger firms.

[Insert Table 2]

Table 3 provides descriptive statistics of the variables from the standard acceleration sample. Firms in this sample complied with the SEC 2008 regulation to the minimum, with their new reporting lags being four months. Panel A shows that 48 firms (35.29%) are from China, 12 firms (8.82%) are from Israel, 11 firms (8.09%) are from Mexico, and the rest of 65 firms (52.21%) are from other countries. Panel B classifies the standard acceleration firms by firm size. It shows that 61 firms (45%) are large firms, 45 firms (33%) are medium firms, and only 30 firms (222%) are small firms. Overall, it appears that the majority of the standard acceleration firms are larger firms, consistent with the full sample. Therefore, it can be inferred that the majority of the voluntary acceleration firms are also large firms, who do not normally procrastinate with the 20-F filing in order to reduce the unfavorable effects of moral hazard (Scott, 1997) or avoid adverse selection (Grossman, 1981).

[Insert Table 3]

5.2 Empirical Results

5.2.1 Market reaction to 20-F releases

Table 4 reports the results from the multivariate analysis for the standard acceleration sample. The variable of interest is *SHORTEN*, which equals one if the firm is classified as an acceleration firm and zero if the firm is a matched non-acceleration firm. The slope coefficient on *SHORTEN* indicates the difference in market reaction to 20-F releases between the acceleration firms and the matched non-acceleration firms. If the

acceleration of 20-F reporting lag results in an increase (decrease) in market reaction, the coefficient on *SHORTEN* should be significantly positive (negative). I also include other control variables, as described in Chapter 4, to the regression model in an attempt to control any possible changes in the information environment from the pre-acceleration to the acceleration year that might affect the change in market reactions.

[Insert Table 4]

Panel A of Table 4 presents the descriptive statistics of the variables used in the abnormal return analysis. Only 13.97% firms provide the reconciliation disclosure from domestic GAAP to U.S. GAAP, and the rest are not required to provide such reconciliation disclosure. The average FOG Index of 20-Fs is 11.78, indicating that 20-Fs are generally easy to read. The mean of *HomeReport* is 0.2547, suggesting that about a quarter of the firms released their home country annual reports before their 20-F releases. The average debt to asset ratio is 48.48%, the average *MTB* is 1.29, and the average *ROA* is 8.16% for the entire sample.

Panel B of Table 4 presents the multivariate regression results from the abnormal return (*CAR*) analysis. The coefficients on *SHORTEN* are consistently positive and significant for all the event windows (0, +2), (0, +3), (0, +4), (-1, +2), (-1, +3), and (-1, +4), indicating that the acceleration firms have significantly larger magnitude of abnormal returns around 20-F releases relative to non-acceleration firms. Among the control variables, *SpecialItems* and *AuditFee* are significant in all the event windows, which is consistent with the prediction that these items are for the first time released in 20-Fs. *HomeReport* is negatively significant in both (0, +3) and (0, +4) windows, which

is consistent with the prediction that the magnitude of market reaction around 20-F releases is weaker if annual reports were previously released in the home markets and filed in the 6-K before 20-F releases. These results suggest that investors find shortened reporting lag of 20-Fs to be more timely and useful for their investment decision making.

Panel C of Table 4 presents the multivariate regression results from the abnormal trading volume (*AVOL*) analysis. The coefficients on *SHORTEN* are not significant for any event windows, indicating that more timely 20-Fs may not affect investors' trading activities. However, I find some evidence that the readability of 20-Fs and firm growth opportunity (*MTB*) are positively associated with abnormal trading volume.

Panel D of Table 4 presents the descriptive statistics of the variables used in the change in abnormal return (*ΔCAR*) analysis. While the means of *ΔCAR* vary in sign, the means of *ΔAVOL* are consistently positive, suggesting that investors may have considered the information contained in 20-Fs when trading. 5.88% of the sample firms stopped providing the reconciliation disclosure, which could be caused by the fact that more firms had switched to IFRS during the test period. Average 20-F readability reduced by 0.36, while the median change in readability is 0, suggesting that the readability of 20-Fs did not significantly change after the reporting lag of 20-Fs was shortened. 3.31% of the sample firms had filed their home country annual reports before 20-F releases in the previous year but not in the current year, and 2.94% of the sample firms had filed their home country annual reports before 20-F releases in the current year but not in the previous year.

Panel E of Table 4 presents the multivariate regression results from the change in abnormal return (*ΔCAR*) analysis. The coefficients on *SHORTEN* are significantly positive for the event windows (0, +3), (0, +4), (-1, +2), (-1, +3), and (-1, +4), indicating that the acceleration firms have a significantly larger change in abnormal returns around 20-F releases relative to the non-acceleration firms. Among the control variables, *LoseReconcil* and *ΔReadability* are negatively significant in some event windows. This is consistent with the prediction that when a firm stops providing reconciliation disclosure, or if a firm's 20-F is less readable, the magnitude of change in abnormal returns should be smaller. Overall, the results are consistent with the results in the level analysis as shown in Panel B, suggesting that the investors find timely 20-Fs to be more useful as a result of shortened reporting lag of 20-Fs.

Panel F of Table 4 presents the multivariate regression results from the change in abnormal volume (*ΔAVOL*) analysis. The coefficients on *SHORTEN* are positively significant for the event windows (-1, +3), and (-1, +4) using one-tailed test, indicating that the acceleration firms experience a significant change in abnormal trading volumes around 20-F releases relative to the non-acceleration firms. This means that the more timely 20-Fs allow investors to reflect the information contained in 20-Fs into their trading activities.

Taken together, the results from the above multivariate analyses show that the standard acceleration firms experience a significantly larger magnitude of market reaction to 20-F releases. I also find that results using abnormal returns are much stronger than

results using trading volumes. Overall, investors appear to reward the more timely 20-Fs, as they provide more relevant information for investors' decision making.

[Insert Table 5]

5.2.2 Firm size effect on market reaction to 20-F releases

Table 5 presents the empirical results pertaining to H2, which predicts that larger firms may benefit more from the acceleration of 20-F filing deadline than smaller firms. In other words, I predict that the slope coefficient on *SHORTEN*Small* to be smaller than the slope coefficients on *SHORTEN*Medium* and *SHORTEN*large*.

Panel A of Table 5 presents the descriptive statistics of the variables used in the abnormal return analysis. 22% of the 272 firms are small firms, 33% are medium and 45% are large firms. The descriptive statistics of other variables are consistent with those as shown in panel A of Table 4. Panel B presents the multivariate regression results after considering the firm size effect. The SEC considers both medium and large firms as the accelerated filers as compared to smaller non-accelerated filers. The coefficients on *SHORTEN*large* are significantly positive for the event windows (0, +2), (0, +3), (0, +4), (-1, +2), and (-1, +4), and the coefficients on *SHORTEN*Medium* are also significantly positive for all the event windows. The coefficients on *SHORTEN*Small*, however, are never significant, indicating that larger firms experience a significantly larger abnormal return around 20-F releases than smaller firms. In other words, I find evidence that larger firms benefit more from the acceleration of 20-F filing deadline than smaller firms. Among the control variables, *SpecialItems* and *AuditFee* are again significant in all the

event windows. Panel C of Table 5 presents the multivariate regression results from the abnormal trading volume analysis. The adjusted R^2s of all the models are negative, meaning that these models are somehow mis-specified.

Panel D of Table 5 presents the descriptive statistics of the variables used in the change in abnormal return analysis. Again, 22% of the 272 firms are small firms, 33% are medium and 45% are large firms. Other variables are the same as shown in Panel D of Table 4. Panel E of Table 5 presents the multivariate regression results from the change in abnormal return analysis. The coefficients on *SHORTEN*Medium* are significantly positive for the event windows (0, +3) and (-1, +3), and the coefficients on *SHORTEN*Large* are significantly positive for all the event windows. The coefficients on *SHORTEN*Small* are, however, never significant, indicating that larger firms have a significantly larger change in abnormal returns around 20-F releases relative to smaller firms after the filing deadline of 20-Fs was shortened. The results in the change analysis are generally consistent with the results in the level analysis as shown in Panel B, suggesting that larger firms benefit more from the acceleration of 20-F filing deadline than smaller firms.

Panel F of Table 5 presents the multivariate regression results from the change in abnormal volume analysis. The coefficient on *SHORTEN*Small* is significantly positive only for the event window (-1, +4). The adjusted R^2s of the other models are consistently negative, meaning that these models are somehow mis-specified. Taken together, the above multivariate analyses show that large and medium standard acceleration firms experience significantly larger abnormal returns around 20-F releases after the filing

deadline of 20-Fs was shortened. I also find consistent evidence using abnormal trading volumes.

[Insert Table 6]

Table 6 presents the results pertaining to H3, which examines the extent to which the acceleration of 20-F filing deadline affects subsequent accounting and financial report quality. More specifically, I examine whether the shortened 20-F filing deadline increases the possibility of issuing restatements and 20-F/As, and reduce the readability of 20-Fs. Table 6 Panel A shows a fairly large increase of 3.68% (*t*-statistic=2.27) in the likelihood of issuing restatements from the acceleration firms following the shortened reporting lag, relative to a decrease of 0.74% (*t*-statistic=1.00) from the matched firms. The difference of the change in the likelihood of issuing restatements is significant at the 5% level (*t*-statistic=2.48), indicating that the accelerated firms are more likely to issue restatements after the filing deadline of 20-Fs was shortened. Panel B shows an insignificant increase of 5.15% (*t*-statistic=1.07) in the likelihood of filing 20-F/As from the acceleration firms, relative to a significant increase of 12.50% (*t*-statistic=2.46) from the matched firms. The difference in the increase in the likelihood of filing 20-F/As is insignificant (*t*-statistic=1.05), indicating that the accelerated firms are not more likely to file 20-F/As after these firms shortened their 20-Fs filing deadline. Finally, Panel C shows that the acceleration firms significantly decreased their 20-F readability (*t*-statistic=-1.89), while the readability of the matched firms' 20-Fs did not change significantly (*t*-statistic=-1.07). The difference of the change in 20-Fs readability appears to be insignificant (*t*-statistic =-0.60). The above three tests provide evidence that restatements appear to increase

following the shortened reporting lag of 20-Fs, but the 20-F amendments and readability of 20-Fs do not appear to have been affected.

[Insert Table 7]

To test whether firm size also affects the accounting quality and reporting quality change after firms accelerated their filing deadline, I also perform a difference-in-differences test using three subsamples, i.e. the small, medium, and large firm samples. Table 7 presents the analysis of change in the likelihood of issuing restatements. Panel A shows that for large firms there is no difference in the change in the likelihood of issuing restatements between the treatment and matched firms. Panel B shows that, for medium firms, there is a fairly large increase in the likelihood (6.67%, t =1.77) of issuing restatements from the acceleration firms. The difference in the change in the likelihood of issuing restatements is significant at the 10% level (t-statistic=1.77), indicating that medium accelerated firms are more likely to issue restatements compared to the non-accelerated firms. I do not find such a difference in small firms in Panel C. The above findings suggest that the acceleration of filing deadline only affects the likelihood of restatements for medium firms. However, since this finding is only based on six firms (6 versus 136 firms), the results need to be interpreted with caution.

[Insert Table 8]

Table 8 presents the analysis of the likelihood of issuing 20-F amendments after the acceleration of filing deadline. Panel A shows that there is no difference in the change in the likelihood of issuing 20-F/As between the treatment and matched firms. Panel B

shows that, for medium firms, there is a fairly large increase of the likelihood (24.44%, *t* = 2.66) of issuing 20-F/As for the matched firms. The difference in the change in the likelihood of issuing 20-F/As is, however, insignificant (*t*-statistic=1.22), indicating that accelerating the filing deadline does not cause a significant difference in the likelihood of issuing 20-F/As. Panel C shows similar results for the small firms sample. Taken together, the above results show that accelerating the filing deadline does not increase the likelihood of issuing 20-F/As across different sizes of firms.

Table 9 presents the analysis of change in readability due to the acceleration of 20-F filing deadline. Consistent with 20-F/As, I find that accelerating the filing deadline does not cause a significant change in the readability of 20-Fs across different sizes of firms.

[Insert Table 9]

5.3 Additional tests

5.3.1 Is further accelerated reporting lag of 20-Fs beneficial?

There are 23 firms that accelerated their reporting lag from more than four months to less than four months, which is defined as the Voluntary 1 firms, and 28 firms that accelerated their reporting lag from four months or three months to less, which is defined as the Voluntary 2 firms. This section examines whether the 20-F filing deadline should be further accelerated to three months or less to align with the 10-K filing deadlines. Advocates argue that since FPIs are listed in the U.S. and under the U.S. rules, they should comply with the same SEC rules as their U.S. counterparts do. However, the opponents argue that FPIs fundamentally differ from domestic U.S. firms because these

firms are from countries with reporting, legal systems and levels of investor protection different from the U.S. This debate raises an important issue as to whether the proposed four-month filing deadline is "optimal" for FPIs and whether a further shortened 20-Fs deadline will provide investors more timely and useful information for their decision-making. The following tests examine this issue.

[Insert Table 10]

Table 10 presents the multivariate regression results for firms in the Voluntary 1 acceleration sample. Panel A of Table 10 shows that these firms are different from those standard acceleration firms in terms of firm size, leverage, MTB, and ROA. The Voluntary 1 acceleration firms appear to be smaller in size, leverage, and MTB, and larger in ROA. The abnormal return analysis in Panel B shows that the coefficients on *SHORTEN* is positive and marginally significant using the event window (-1, +4). This suggests that there is a marginal net benefit from further accelerating the filing deadline to less than four months for firms that used to file their 20-Fs six or five months after fiscal year end. However, I do not find consistent evidence when using abnormal trading volume, change in abnormal return, and change in abnormal volume analyses. This finding, therefore, needs to be interpreted with caution.

[Insert Table 11]

Table 11 presents the results for firms in the Voluntary 2 acceleration sample. Panel A of Table 11 shows that these firms are different from those standard acceleration firms in terms of firm size, leverage, MTB, and ROA. The Voluntary 2 acceleration firms

appear to be larger in size, leverage, and ROA, and smaller in MTB. However, I do not find any significant coefficients on *SHORTEN* with the predicted sign when using the abnormal return, abnormal trading volume, change in abnormal return, and change in trading volume analyses. This suggests that there is no significant net benefit from further accelerating the filing deadline to less than four months when these firms already filed their 20-Fs four months after fiscal year end before the new rule. Again, this finding needs to be interpreted with caution because of the small sample size. Further study should revisit this issue when more data become available.

[Insert Table 12]

5.3.2 Do Chinese firms dominate the empirical results?

Since Chinese firms account for more than one third (35.29%) of the standard acceleration sample, I divide the sample into the Chinese and non-Chinese subsamples to further investigate whether the main results as reported in Table 4 are driven by the Chinese firms. Table 12 presents the main test results only using the Chinese subsample. Panel A presents the descriptive statistics of the variables used for the abnormal return analysis. The Chinese firms are different from those standard acceleration firms in terms of firm size, leverage, percentage of home country report, and ROA. The Chinese firms appear to be smaller in size, leverage, and percentage of home country report, and larger in ROA. Panel B presents the multivariate regression results from the abnormal return analysis. The coefficients on *SHORTEN* are significantly positive for all the event windows (0, +2), (0, +3), (0, +4), (-1, +2), (-1, +3), and (-1, +4). Panel C presents the multivariate regression results from the abnormal trading volume analysis. I find that

only the coefficient on *SHORTEN* in the event window (0, +4) is marginally significant with the predicted sign, but the adjusted R^2s of all the models are negative, meaning that these models are somehow mis-specified. Panel D presents the descriptive statistics of variables used for change in abnormal return and abnormal trading volume analyses. The means of *ΔCAR* are consistently negative in all the test windows, while the means of *ΔAVOL* are consistently positive. 1.04% of the firms stopped providing domestic GAAP-U.S. GAAP reconciliation disclosure, slightly lower than the full standard acceleration sample. Average readability reduces by 0.21, while the median readability change is 0. Again, the readability of 20-Fs does not appear to have changed much after 20-F reporting lag was shortened. 2.08% of Chinese firms had released their home country annual reports in the 6-K before 20-F releases in the previous year but not in the current year, and 2.08% of firms had released their home country annual reports in the 6-K before 20-F releases in the current year but not in the previous year. Panel E presents the multivariate regression results from the change in abnormal return analysis. The coefficient on *SHORTEN* is significantly positive at the 10% level only for the event windows (0, +4). Panel F presents the multivariate regression results from the change in abnormal volume analysis. The coefficients on *SHORTEN* are significantly positive only for the event windows (0, +4) and (-1, +4).

Taken together, the results for the Chinese firms subsample are generally consistent with those for the main sample in the abnormal return, abnormal trading volume and change in abnormal volume analyses. However, I find that the results using change in abnormal returns are much weaker for the Chinese firms.

[Insert Table 13]

Table 13 presents the results for the non-Chinese subsample. Panel A presents the descriptive statistics of the variables used in the abnormal return analysis. The non-Chinese firms are different from the Chinese firms in terms of firm size, leverage, MTB, percentage of home country report, and ROA. The non-Chinese firms appear to be larger in size, leverage, MTB, and percentage of home country report, and smaller in ROA. Panel B presents the multivariate regression results from the abnormal return analysis. The coefficients on *SHORTEN* are never significant for any event windows, indicating that non-Chinese acceleration firms do not experience any abnormal returns around 20-F releases. This finding, however, is very different from the finding for the Chinese firms as reported in Panel B of Table 12. Panel C presents the multivariate regression results using abnormal trading volumes. The coefficients on *SHORTEN* are again never significant for any event windows, indicating that non-Chinese acceleration firms do not experience any abnormal trading volumes around 20-F releases relative to the non-acceleration firms. Panel D presents the descriptive statistics of the variables used in the change in abnormal return and abnormal trading volume analyses. The means of *ΔCAR* are consistently positive in all the test windows, while the means *ΔAVOL* vary by sign. 8.52% of the non-Chinese firms stopped providing domestic GAAP-U.S. GAAP reconciliation disclosure, higher than the Chinese firms. Average readability reduces by 0.45, while the median readability change is 0. Consistent with our previous findings, the readability of 20-Fs did not appear to have changed after the filing deadline of 20-Fs was shortened. 3.98% firms had released their home country annual reports in the 6-K before

20-F releases in the previous year but not in the current year, and 3.41% of firms had released their home country annual reports in the 6-K before 20-F releases in the current year but not in the previous year. Panel E presents the multivariate regression results from the change in abnormal return analysis. The coefficients on *SHORTEN* are significantly positive for the event windows (0, +3), (0, +4), (-1, +2), (-1, +3), and (-1, +4), indicating that non-Chinese acceleration firms experience a larger change in abnormal returns around 20-F releases. This finding is rather different from the Chinese firms as reported in Panel E of Table 12. Panel F presents the multivariate regression results from the change in abnormal volume analysis. The coefficients on *SHORTEN* are never significant for any event windows.

Taken together, the results for non-Chinese firms are much weaker than those for Chinese firms. Moreover, I find that results for non-Chinese firms are consistent with those for the main sample in the abnormal trading volume and change in abnormal return analyses.

The next Chapter summarizes the findings in this study and discusses the implication from the results.

CHAPTER 6

CONCLUSION

This study examines the impact of the SEC's decision to accelerate the 20-F filing deadline on the informativeness and reliability of the 20-F. The SEC claims that a shortened 20-F filing deadline will provide investors with more timely and relevant information for their investment decision-making. However, acceleration of filing deadline also shortens the preparation time of financial statements, which could adversely affect the quality and accuracy of annual reports and make them less useful for investors.

I find that firms that accelerate their 20-F filing deadline experience significant abnormal returns and increased abnormal returns around 20-F releases, compared to the non-acceleration firms. However, I find weaker results when using abnormal trading volume and change in abnormal trading volume. I also find that the above results vary by firm size. In fact, I find that only large and medium firms experience significant and positive abnormal returns around 20-F releases; small firms do not experience any significant abnormal returns and trading volumes around 20-F releases. This is partially consistent with the findings in Dolye and Magilke (2013) and the notion of "diseconomies of scale" that when all firms face the same preparation time cut, larger firms have more financial resources and better infrastructure to support the execution of shortening the 20-F filing deadline.

I also examine whether shortening the 20-F filing deadline affects accounting and reporting quality. Using the difference-in-differences tests, I find that with less preparation time for the 20-Fs, only the medium firms sample shows a significantly

higher probability of restating prior financial statements (6.67% higher) compared to large and small acceleration firms. Further analysis shows that the readability of 20-Fs and the likelihood of issuing amendment following 20-F filing did not change after filing acceleration, compared to the matched non-acceleration firms.

I also perform some additional tests to ensure the robustness of the above findings. First, as there are voluntary acceleration firms who shortened their filing deadline to less than four months, they provide a good sample to investigate whether further accelerated filing deadline is beneficial. The results show that there is little to no net benefit for firms to further shorten their filing deadline to less than four month. However, the result needs to be interpreted with caution because it is based on a rather small sample (51 voluntary firms). Second, because Chinese firms account for more than one third of the sample, I further investigate whether the findings of this study are mainly driven by the Chinese firms. I find that the results for Chinese and non-Chinese firms are somewhat different. Chinese firms experience more significant abnormal returns and change in abnormal trading volumes, while non-Chinese firms experience more significant change in trading volumes around the 20-F releases in the year when the filing lags of 20-Fs were shortened.

Overall, this study provides empirical evidence to shed light on the consequences of shortening the filing deadline of 20-Fs. Shortening the 20-F filing deadline has a significant impact on the relevance (informativeness) and reliability of 20-Fs, and the new "four-month" filing deadline appears to be appropriate for FPIs. The results should be of interest to the SEC, corporate managers, and financial statement preparers. As the four-month filing deadline is still one to two months behind the 10-K's deadlines,

whether it is beneficial to further accelerate the 20-F filing deadline to align with the filing deadlines of U.S. domestic firms is certainly worth investigating. Future research could investigate the extent to which accounting quality is affected in the post-acceleration period, and use more data to determine whether further shortened reporting lag is plausible. Moreover, with shortened reporting lag between 10-Ks and 20-Fs, it is interesting to investigate the information transfer between the U.S. domestic firms and foreign firms that are listed in the US markets, as the literature only examined the information transfer either between U.S. domestics firms or between U.S. domestic firms and international firms listed in international markets. There is still a big gap in the literature about the information transfer between the U.S. domestic firms and foreign firms that are listed in the US markets. Moreover, further research should examine how financial analysts react to the shortened filing lag of 20-Fs. Finally, future research should investigate non-robot investors' searching behavior through EDGAR following the shortened filing lag of 20-Fs.

REFERENCES

Asthana, S., and Balsam, S. 2001. The effect of EDGAR on the market reaction of 10-K filings. *Journal of Accounting and Public Policy* 20: 349-372.

Asthana, S., Balsam, S., and Sankaraguruswamy, S. 2004. Differential response of small versus large investors to 10-K filings on EDGAR. *The Accounting Review* 79: 571-589.

Atiase, R. K. 1985. Predisclosure information, firm capitalization and security price behavior around earnings announcements. *Journal of Accounting Research* 23: 21-36.

Ball, R., and P. Brown. 1968. An empirical evaluation of accounting income numbers. *Journal of Accounting Research* 6:159-177.

Bamber, L. S. 1987. Unexpected earnings, firm size, and trading volume around quarterly earnings announcements. *The Accounting Review* 62: 510-532.

Beaver, W. H. 1968. The Information Content of Annual Earnings Announcements. *Journal of Accounting Research* (6): 67-92.

Beaver, W., R. Lambert, and D. Morse. 1980. The information content of security prices. *Journal of Accounting and Economics* 2:3–28.

Bernard, V., and J. Thomas. 1989. Post-earnings-announcement drift: delayed price response or risk premium? *Journal of Accounting Research* 27:1–48.

Brochet, F., P. Naranjo, and G. Yu. 2012. *Causes and Consequences of Linguistic Complexity in Non-U.S. Firm Conference Calls.* Working paper, Harvard University.

Byard, D., S. Mashruwala, and J. Suh. 2010. *The Economic Consequences of Eliminating the Reconciliation of IFRS to U.S. GAAP: An Information Transfer Analysis.* Working Paper, Baruch College-CUNY.

Callen, J., J. Livnat, and D. Segal. 2006. The information content of SEC filings and information environment: a variance decomposition analysis. *The Accounting Review* 81(5): 1017-1043.

Chen, L. H., and H. Sami. 2008. Trading volume reaction to the earnings reconciliation from IAS to U.S. GAAP. *Contemporary Accounting Research* 25 (1): 15-53.

Chen, L. H., and H. Sami. 2013. The impact of firm characteristics on trading volume reaction to the earnings reconciliation from IFRS to U.S. GAAP. *Contemporary Accounting Research* 30 (2): 697–718.

Choi, F. D., and G. K. Meek. 2011. *International Accounting*. Prentice Hall, New Jersey.

Christensen, T. E., W. G. Heninger, and E. K. Stice. 2013. Factors associated with price reactions and analysts' forecast revisions around SEC filings. *Research in Accounting Regulation* 25: 122-148.

Cooper, I. and Kaplanis, E. 1994. Home Bias in equity portfolios, inflation hedging, and international capital market equilibrium. *Review of Financial Studies* 7 (1): 45-60.

De Franco, G., M. H. Wong, and Y. Zhou. 2011. Accounting Adjustments and the Valuation of Financial Statement Note Information. *The Accounting Review* 86: 1577-1604.

Dolye, J. T., and M. J. Magilke. 2013. Decision usefulness and accelerated filing deadlines. *Journal of Accounting Research* 51 (3): 549-581.

Dye, R., and S. Sridhar. 2004. Reliability-relevance trade-offs and the efficiency of aggregation. *Journal of Accounting Research* 42: 51-88.

Easton, P. D., and Zmijewski, M. E. 1993. SEC form 10K/10Q reports and annual reports to shareholders: Reporting lags and squared market model prediction errors. *Journal of Accounting Research* 31: 113–129.

Etter, E., L. Rees, and J. Lukawitz. 1999. The Usefulness to Individual and Institutional Investors of Annual Earnings Announcements and SEC Filings by Non-U.S. Companies. *Journal of International Accounting, Auditing & Taxation* 8(1):109-131.

Foster, T. W., III, and Vickrey, D. 1978. The incremental information content of the 10-K. *The Accounting Review* 53: 921-934.

Freeman, R. N. 1987. The association between accounting earnings and security returns for large and small firms. *Journal of Accounting and Economics* 9: 195-228.

Griffin, P. 2003. Got Information? Investor response to form 10-K and form 10-Q EDGAR filings. *Review of Accounting Studies* 8: 433-441.

Grossman, S.J. 1981. The informational role of warranties and private disclosure about product quality. *Journal of Law and Economics* 24(3): 461-489.

Collins, D., and P. Hribar. 2002. Earnings-based and accrual-based market anomalies: one effect or two? *Journal of Accounting and Economics* 40: 105-134.

Harris, M. S., and K. A. Muller. 1999. The market valuation of IAS versus U.S. GAAP accounting measures using Form 20-F reconciliations. *Journal of Accounting and Economics* 26: 285–312.

Henry, E., S. Lin, and Y. Yang. 2009. The European-U.S. ''GAAP Gap'': IFRS to U.S. GAAP Form 20-F reconciliations. *Accounting Horizons* 23 (2): 121–150.

Holthausen, R., and R. Verrecchia. 1990. The effect of informedness and consensus on price and volume behavior. *The Accounting Review* 65: 191-208.

Jiang, J., K. R. Petroni, and I. W. Wang. 2010. *Did Eliminating the 20-F Reconciliation Between IFRS and U.S. GAAP Matter?* Working paper, Michigan State University.

Kadous, K., L. Koonce, and J. Thayer. 2012. Do Financial Statement Users Judge Relevance Based on Properties of Reliability? *The Accounting Review* 87 (4): 1335-1356.

Kim, Y., H. Li, and S. Li. 2012. Does eliminating the Form 20-F reconciliation from IFRS to U.S. GAAP have capital market consequences? *Journal of Accounting and Economics* 53: 249-270.

Kim, O., and R. Verrecchia. 1991. Trading volume and price reaction to public announcements. *Journal of Accounting Research* 29: 302-321.

Kormendi, R., and R. Lipe. 1987. Earnings innovations, earnings persistence and stock returns. *Journal of Business* 60:323–345.

Lehavy, R., F. Li, and K. Merkley. 2011. The effect of annual report readability on analyst following and the properties of their earnings forecasts. *The Accounting Review* 86 (3): 1087-1115.

Li, F. 2008. Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and Economics* 45: 221–247.

Loughran, T., and B. McDonald. 2011. When Is a Liability Not a Liability? Textual Analysis, Dictionaries, and 10-Ks. *The Journal of Finance* 66 (1): 35-65.

Loughran, T., and B. McDonald. 2014. Measuring Readability in Financial Disclosures. *The Journal of Finance* 69 (4): 1643-1671.

Lundholm, R. J., R. Rogo, and J. L. Zhang. 2014. Restoring the tower of Babal: How foreign firms communicate with U.S. investors. *The Accounting Review* 89 (4):1453-1485.

Meek, G. K. 1983. U.S. Securities Market Responses to Alternate Earnings Disclosures of Non-U.S. Multinational Corporations. *The Accounting Review* 58 (2): 394-402.

Miller, B. 2010. The effects of reporting complexity on small and large investor trading. *The Accounting Review* 85 (6): 2107-2143.

Olibe, K. 2001. Assessing the Usefulness of SEC Form 20-F Disclosures Using Return and Volume Metrics: The Case of U.K. Firms. *Journal of Economics and Finance* 25: 343-357.

Qi, D., Wu, W., and Haw, I. 2000. The incremental information content of SEC 10-K reports filed under the EDGAR system. *Journal of Accounting, Auditing & Finance* (January): 25-46.

Schipper K., and L, Vincent. 2003. Earnings Quality. *Accounting Horizons* (17): 97-110.

Scott, W. R. 1997. *Financial Accounting Theory*. Prentice Hall, New Jersey.

Securities and Exchange Commission (SEC). 1998. *Plain English Disclosure*. SEC Release No. 33-7497. Final Rule. Washington, DC: SEC.

Securities and Exchange Commission (SEC). 2002. *Acceleration of Period Report Filing Dates and Disclosure Concerning Website Access to Reports*. SEC Release No. 33-8128. Final Rule. Washington, DC: SEC.

Securities and Exchange Commission (SEC). 2005. *Revisions to Accelerated Filer Deginition and Accelerated Deadlines for Filing Periodic Reports*. SEC Release No. 33-8864. Final Rule. Washington, DC: SEC.

Securities and Exchange Commission (SEC). 2007. *Acceptance from foreign private issuers of financial statements prepared in accordance with International Financial Reporting Standards without reconciliation to U.S. GAAP*. SEC Release No. 33-8879 . Final rule. Washington, DC: SEC.

Securities and Exchange Commission (SEC). 2008. *Foreign Issuer Reporting Enhancements*. SEC Release No. 33-8959. Final Rule. Washington, DC: SEC.

Stice, E. K. 1991. The market reaction to 10-K and 10-Q filings and to subsequent wall street journal earnings announcements. *The Accounting Review* 66: 42-55.

You, H., and X. J. Zhang. 2009. Financial reporting complexity and investor underreaction to 10-K information. *Review of Accounting Studies* 14: 559-586.

Zhang, X. 2012. Information relevance, reliability and disclosure. *Review of Accounting Studies* 17: 189-226.

TABLE 1

Sample Selection

Panel A: Number of Observations

Year	Acceleration	Non-acceleration
2008	37	238
2009	37	220
2010	32	225
2011	124	172
Total	**230**	**855**

Panel B: Acceleration Firms Sample Selection Procedure

230	Original acceleration firms
-14	No financial data
-13	No return data
-16	No match
187	Firms available for this study

Panel C: Final Sample Composition

Year	Acceleration	Matched	Total
2008	31	31	**62**
2009	28	28	**56**
2010	28	28	**56**
2011	100	100	**200**
Total	**187**	**187**	**374**

Notes:

This table reports the sample selection procedure. Acceleration firms refer to the firms that shortened their 20-F reporting lag by at least 20 days. Non-acceleration firms refer to firms that changed their 20-F reporting lag by at most ±19 days. Each acceleration firm is matched with one non-acceleration firm based on market capitalization, filing year, and industry in the acceleration year.

TABLE 1

Sample Selection

(Continued)

Panel D: Number of Observations by Geographic Areas			
Argentina	9	Italy	2
Australia	1	Japan	2
Bermuda	5	Korea (South)	8
Brazil	8	Luxembourg	1
Chile	10	Mexico	13
China	55	Monaco	3
Denmark	1	Netherland	2
France	2	Panama	1
Greece	13	Russia	2
Hong Kong	3	Singapore	1
India	4	Spain	4
Indonesia	1	Sweden	1
Ireland	2	Taiwan (China)	5
Israel	21	United Kingdom	7
		Total	**187**

TABLE 2

Descriptive Statistics of All Acceleration Firms

Panel A: Type of Acceleration

Type \ Year		2008	2009	2010	2011	Total
Standard	6→4	11	7	12	70	**100**
	5→4	7	5	6	18	**36**
Voluntary 1	6→3	5	2	2	1	**10**
	5→3	2	3	1	6	**12**
	5→2		1			**1**
Voluntary 2	4→3	2	8	4	4	**18**
	4→2	2		1		**3**
	3→2	2	1	2	1	**6**
	3→1		1			**1**
	Total	**31**	**28**	**28**	**100**	**187**

Panel B: Number of Observations by Acceleration Category

Type \ Year	2008	2009	2010	2011	Total
Standard	18	12	18	88	**136**
Voluntary 1	7	6	3	7	**23**
Voluntary 2	6	10	7	5	**28**
Total	**31**	**28**	**28**	**100**	**187**

Panel C: Number of Observations by Filer Status

Size \ Year	2008	2009	2010	2011	Total	%
Large	14	11	13	46	**84**	45%
Medium	9	11	8	36	**64**	34%
Small	8	6	7	18	**39**	21%
Total	**31**	**28**	**28**	**100**	**187**	**100%**

Notes:

In Panel A, the notation "$m \rightarrow n$" refers to the type of change where a firm's reporting lag in the previous year is m months, and in the current year is n months. "Standard" firms refer to those firms that shortened their 20-F reporting lag to four months, "Voluntary 1" firms refer to those firms that shortened their 20-F reporting lag from more than four months to less than four months. "Voluntary 2" firms refer to those firms that shortened their 20-F reporting lag from no more than four months to even less. "Large" firms have $700 million public float or more; "Medium" firms have less than $700 million but no less than 75 million public float; and "Small" firms have less than 75 million public float.

TABLE 3

Descriptive Statistics of Standard Acceleration Firms

Panel A: Number of Observations by Geographic Areas			
Argentina	9	Israel	12
Australia	1	Italy	2
Bermuda	4	Korea (South)	8
Brazil	7	Mexico	11
Chile	8	Monaco	1
China	48	Netherland	1
Denmark	1	Russia	2
France	1	Singapore	1
Greece	5	Spain	3
Hong Kong	2	Taiwan (China)	5
India	2	United Kingdom	1
Indonesia	1	Total	**136**

Panel B: Number of Observations by Filer Status						
Size \ Year	2008	2009	2010	2011	Total	%
Large	8	4	10	39	**61**	45%
Medium	5	5	3	32	**45**	33%
Small	5	3	5	17	**30**	22%
Total	**18**	**12**	**18**	**88**	**136**	**100%**

Notes:
In Panel B, "Large" firms have $700 million public float or more; "Medium" firms have less than $700 million but no less than 75 million public float; and "Small" firms have less than 75 million public float.

TABLE 4

Multivariate Analysis of Market Reactions to 20-F Filings

-Standard Acceleration Sample

Panel A: Level Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
CAR(0,+2)	272	0.0009	-0.0013	0.0531	-0.0194	0.0213
CAR(0,+3)	272	0.0035	-0.0017	0.0586	-0.0239	0.0272
CAR(0,+4)	272	0.0044	0.0002	0.0634	-0.0233	0.0326
CAR(-1,+2)	272	0.0035	0.0015	0.0619	-0.0221	0.0269
CAR(-1,+3)	272	0.0062	0.0001	0.0677	-0.0217	0.0388
CAR(-1,+4)	272	0.0071	0.0056	0.0726	-0.0222	0.0401
AVOL(0,+2)	272	0.5675	-0.8186	6.3750	-1.5142	0.8271
AVOL(0,+3)	272	0.5967	-1.0826	7.0429	-1.9498	0.9822
AVOL(0,+4)	272	0.5440	-1.3382	7.5363	-2.5962	1.3953
AVOL(-1,+2)	272	0.5593	-0.9931	6.6398	-1.9128	0.9965
AVOL(-1,+3)	272	0.5886	-1.1665	7.3446	-2.3175	0.9370
AVOL(-1,+4)	272	0.5358	-1.4238	7.8523	-2.8431	1.3669
SHORTEN	272	0.5000	0.5000	0.5009	0.0000	1.0000
Reconcil	272	0.1397	0.0000	0.3473	0.0000	0.0000
Assets	272	7.5761	7.0870	2.3253	5.6916	9.4470
Readability	272	11.7824	11.6000	2.0066	10.8000	12.4000
HomeReport	272	0.2574	0.0000	0.4380	0.0000	1.0000
Leverage	272	0.4848	0.4869	0.2579	0.2448	0.6984
MTB	272	1.2863	0.8415	1.3097	0.4417	1.5934
Accruals	272	0.0766	0.0604	0.0651	0.0287	0.1015
AuditFee	272	0.0016	0.0007	0.0022	0.0002	0.0021
ROA	272	0.0816	0.0564	0.0864	0.0212	0.1059
Sales	272	0.3434	0.1663	0.7631	0.0611	0.3562
SpecialItems	272	0.0165	0.0007	0.0470	0.0000	0.0102

Notes: Variables are defined in the appendix.

TABLE 4

Multivariate Analysis of Market Reactions to 20-F Filings-Standard Acceleration Sample

$$CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel B: Abnormal Return Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	-0.0136		0.0034		-0.0390		0.0194		0.0363		-0.0060	
SHORTEN	0.0219	***	0.0217	***	0.0252	***	0.0183	**	0.0180	**	0.0216	**
Reconcil	-0.0063		-0.0002		-0.0100		-0.0010		0.0051		-0.0048	
Assets	-0.0002		0.0006		0.0025		-0.0009		-0.0001		0.0018	
Readability	0.0023		0.0019		0.0025		0.0017		0.0013		0.0018	
HomeReport	-0.0141		-0.0180	*	-0.0222	**	-0.0106		-0.0144		-0.0186	
Leverage	-0.0044		-0.0231		-0.0170		-0.0038		-0.0225		-0.0164	
MTB	-0.0043		-0.0041		-0.0055	*	-0.0022		-0.0021		-0.0034	
Accruals	-0.0612		-0.0920		-0.1145	*	-0.0470		-0.0777		-0.1003	
AuditFee	-4.4914	**	-5.6631	**	-5.9429	**	-6.0639	**	-7.2358	***	-7.5150	***
ROA	0.0361		0.0458		0.0345		0.0122		0.0219		0.0106	
Sales	-0.0017		-0.0006		0.0003		0.0039		0.0050		0.0059	
SpecialItems	0.2469	***	0.2729	***	0.3078	***	0.3298	***	0.3558	***	0.3907	***
N	272		272		272		272		272		272	
R^2	0.1463		0.1507		0.1708		0.1179		0.1268		0.1358	
Adj. R^2	0.0708		0.0756		0.0976		0.0399		0.0497		0.0594	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 4

Multivariate Analysis of Market Reactions to 20-F Filings-Standard Acceleration Sample

$$AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel C: Abnormal Trading Volume Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)	(-1,+2)		(-1,+3)		(-1,+4)
Intercept	4.04411		4.26537		3.66973	4.51382		4.73508		4.13944
SHORTEN	0.15181		0.44577		0.76127	-0.04698		0.24698		0.56248
Reconcil	-0.90822		-1.30586		-1.38801	-1.06584		-1.46348		-1.54562
Assets	-0.11776		-0.1458		-0.05970	-0.12264		-0.15069		-0.06459
Readability	-0.32716		-0.39108	*	-0.39800	-0.33684		-0.40076	*	-0.40769
HomeReport	-0.35863		-0.4422		-0.99899	-0.69330		-0.77687		-1.33365
Leverage	0.78640		0.62757		0.97857	0.94801		0.78918		1.14018
MTB	0.72237	**	0.60556		0.53322	0.64485	*	0.52804		0.45570
Accruals	-3.22255		-4.29829		-5.54527	-4.16572		-5.24145		-6.48843
AuditFee	-215.127		-224.727		-246.295	-241.037		-250.636		-272.204
ROA	2.49641		1.61120		0.65241	1.75122		0.86601		-0.09278
Sales	-0.20465		-0.28222		-0.22339	-0.24362		-0.32120		-0.26237
SpecialItems	-0.07667		0.51048		1.43224	1.13153		1.71868		2.64044
N	272		272		272	272		272		272
R^2	0.0529		0.0535		0.0562	0.0516		0.0521		0.0555
Adj. R^2	-0.0308		-0.0301		-0.0271	-0.0322		-0.0316		-0.0280

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 4

Multivariate Analysis of Market Reactions to 20-F Filings
-Standard Acceleration Sample

Panel D: Change Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
ΔCAR(0,+2)	272	0.0008	-0.0007	0.0474	-0.0231	0.0151
ΔCAR(0,+3)	272	-0.0011	-0.0026	0.0552	-0.0302	0.0220
ΔCAR(0,+4)	272	-0.0050	-0.0019	0.0575	-0.0336	0.0216
ΔCAR(-1,+2)	272	0.0012	-0.0050	0.0541	-0.0274	0.0234
ΔCAR(-1,+3)	272	-0.0005	-0.0013	0.0615	-0.0308	0.0298
ΔCAR(-1,+4)	272	-0.0042	-0.0023	0.0640	-0.0369	0.0252
ΔAVOL(0,+2)	272	0.2466	-0.0607	7.0001	-0.9244	0.8878
ΔAVOL(0,+3)	272	0.1281	-0.0870	7.9734	-1.4397	1.3840
ΔAVOL(0,+4)	272	0.1696	0.1099	8.6072	-1.5563	1.5266
ΔAVOL(-1,+2)	272	0.1611	-0.0453	7.3067	-1.5691	1.3627
ΔAVOL(-1,+3)	272	0.0314	-0.2194	8.3357	-1.9257	1.6797
ΔAVOL(-1,+4)	272	0.0290	-0.1254	8.9102	-2.1646	1.8567
SHORTEN	272	0.5000	0.5000	0.5009	0.0000	1.0000
LoseReconcil	272	0.0588	0.0000	0.2357	0.0000	0.0000
ΔAccruals	272	0.0013	-0.0020	0.0664	-0.0293	0.0270
ΔAuditFee	272	-0.0003	0.0000	0.0009	-0.0002	0.0000
ΔAssets	272	0.0906	0.0443	0.2720	-0.0441	0.1898
ΔSpecialItems	272	0.0068	0.0000	0.0577	-0.0009	0.0059
ΔROA	272	0.0077	-0.0009	0.0734	-0.0243	0.0239
ΔSales	272	0.0124	-0.0272	0.7659	-0.1689	0.0981
ΔReadability	272	-0.3632	0.0000	1.9669	-0.8000	0.4000
HomeReport1	272	0.0331	0.0000	0.1792	0.0000	0.0000
HomeReport2	272	0.0294	0.0000	0.1693	0.0000	0.0000

Notes: Variables are defined in the appendix.

TABLE 4

Multivariate Analysis of Market Reactions to 20-F Filings-Standard Acceleration Sample

$$\Delta CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accruals + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel E: Abnormal Return Change Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	-0.00133		-0.00850		-0.00659		-0.00542		-0.01226	**	-0.00849	
SHORTEN	0.00525		0.01458	**	0.01502	**	0.01235	*	0.02063	***	0.01806	**
LoseReconcil	-0.01342		-0.01698		-0.02729	*	-0.02251		-0.02783	*	-0.03753	**
ΔAccruals	-0.10002	*	-0.07963		-0.02906		-0.01405		-0.02866		0.00031	
ΔAuditFee	2.37711		4.23841		7.91691	**	-0.12083		2.56349		10.1918	**
ΔAssets	-0.01502		-0.02658	*	-0.03654	**	-0.02275		-0.03051	*	-0.02976	
ΔSpecialItems	0.05143		0.10024		0.02637		0.03749		0.05422		0.00956	
ΔROA	0.09610	**	0.08377		0.000957		0.08892	*	0.13818	**	0.05977	
ΔSales	0.01042	**	0.01008	**	0.01218	**	0.01040	**	0.00690		0.01341	**
ΔReadability	-0.00206		-0.00546	***	-0.00348	*	-0.00240		-0.00596	***	-0.00531	***
HomeReport1	0.01725		0.01873		0.00846		0.01626		0.01547		0.00749	
HomeReport2	-0.01134		0.00379		0.00230		0.00508		-0.00019		-0.00311	
N	272		272		272		272		272		272	
R^2	0.0749		0.1112		0.0907		0.0846		0.1437		0.1389	
Adj. R^2	0.0245		0.0628		0.0412		0.0347		0.0971		0.0920	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 4

Multivariate Analysis of Market Reactions to 20-F Filings-Standard Acceleration Sample

$$\Delta AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accrual + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel F: Abnormal Trading Volume Change Analysis

Event Window	(0,+2)	(0,+3)	(0,+4)	(-1,+2)	(-1,+3)		(-1,+4)	
Intercept	0.07186	-0.26531	-0.16452	-0.18656	-0.53153		-0.54340	
SHORTEN	1.02428	1.37974	1.36261	1.21702	1.55858	#	1.67319	#
LoseReconcil	0.34382	0.19988	0.00658	0.28316	0.12354		-0.22934	
ΔAccruals	-6.58129	-9.25552	-10.1110	-8.92723	-11.4320		-11.6714	
ΔAuditFee	298.531	538.842	822.131	395.262	652.372		951.792	
ΔAssets	-3.19729	-2.8505	-2.14345	-2.45468	-1.88090		-1.08943	
ΔSpecialItems	-4.57865	-6.00115	-10.3847	-3.35897	-5.65345		-10.0011	
ΔROA	1.90899	2.63870	2.11383	4.00445	6.65169		5.08657	
ΔSales	0.35510	0.22358	0.08382	0.11760	-0.03631		-0.22074	
ΔReadability	-0.33802	-0.38721	-0.42826	-0.38069	-0.42415		-0.45571	
HomeReport1	-0.41310	-0.07686	2.10595	-1.08835	-0.75394		1.52920	
HomeReport2	0.11195	-0.02113	0.71402	-0.67936	-0.73297		-0.02772	
N	272	272	272	272	272		272	
R^2	0.0478	0.0506	0.0608	0.0476	0.0523		0.0611	
Adj. R^2	-0.0041	-0.0011	0.0096	-0.0043	0.0007		0.0099	

Notes:
Significant at 0.10 for a one-tailed *t*-test of means. # Significant at 0.10 for a one-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 5

Multivariate Analysis of Size Effect on Market Reactions to 20-F Filings -Standard Acceleration Sample

Panel A: Level Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
CAR(0,+2)	272	0.0009	-0.0013	0.0531	-0.0194	0.0213
CAR(0,+3)	272	0.0035	-0.0017	0.0586	-0.0239	0.0272
CAR(0,+4)	272	0.0044	0.0002	0.0634	-0.0233	0.0326
CAR(-1,+2)	272	0.0035	0.0015	0.0619	-0.0221	0.0269
CAR(-1,+3)	272	0.0062	0.0001	0.0677	-0.0217	0.0388
CAR(-1,+4)	272	0.0071	0.0056	0.0726	-0.0222	0.0401
AVOL(0,+2)	272	0.5675	-0.8186	6.3750	-1.5142	0.8271
AVOL(0,+3)	272	0.5967	-1.0826	7.0429	-1.9498	0.9822
AVOL(0,+4)	272	0.5440	-1.3382	7.5363	-2.5962	1.3953
AVOL(-1,+2)	272	0.5593	-0.9931	6.6398	-1.9128	0.9965
AVOL(-1,+3)	272	0.5886	-1.1665	7.3446	-2.3175	0.9370
AVOL(-1,+4)	272	0.5358	-1.4238	7.8523	-2.8431	1.3669
SHORTEN	272	0.5000	0.5000	0.5009	0.0000	1.0000
Small	272	0.2206	0.0000	0.4154	0.0000	0.0000
Medium	272	0.3309	0.0000	0.4714	0.0000	1.0000
Large	272	0.4485	0.0000	0.4983	0.0000	1.0000
Reconcil	272	0.1397	0.0000	0.3473	0.0000	0.0000
Assets	272	7.5761	7.0870	2.3253	5.6916	9.4470
Readability	272	11.7824	11.6000	2.0066	10.8000	12.4000
HomeReport	272	0.2574	0.0000	0.4380	0.0000	1.0000
Leverage	272	0.4848	0.4869	0.2579	0.2448	0.6984
MTB	272	1.2863	0.8415	1.3097	0.4417	1.5934
Accruals	272	0.0766	0.0604	0.0651	0.0287	0.1015
AuditFee	272	0.0016	0.0007	0.0022	0.0002	0.0021
ROA	272	0.0816	0.0564	0.0864	0.0212	0.1059
Sales	272	0.3434	0.1663	0.7631	0.0611	0.3562
SpecialItems	272	0.0165	0.0007	0.0470	0.0000	0.0102

Notes: Variables are defined in the appendix.

TABLE 5

Multivariate Analysis of Size Effect on Market Reactions to 20-F Filings-Standard Acceleration Sample

$$CAR = \alpha_1 + \alpha_2 \times Small + \alpha_3 \times Large + \alpha_4 \times SHORTEN*Small + \alpha_5 \times SHORTEN*Medium + \alpha_6 \times SHORTEN*Large + \alpha_7 \times Reconcil + \alpha_8 \times Assets + \alpha_9 \times Readability + \alpha_{10} \times HomeReport + \alpha_{11} \times Leverage + \alpha_{12} \times MTB + \alpha_{13} \times Accruals + \alpha_{14} \times AuditFee + \alpha_{15} \times ROA + \alpha_{16} \times Sales + \alpha_{17} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel B: Abnormal Return Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	-0.01818		-0.00512		-0.03734		0.02357		0.03664		0.00440	
Small	0.00827		0.00023		-0.00456		0.00165		-0.00639		-0.01118	
Large	0.00498		0.00100		0.00548		0.01281		0.00882		0.01330	
*SHORTEN*Small*	0.00615		0.00260		0.00723		0.01094		0.00738		0.01202	
*SHORTEN*Medium*	0.03062	***	0.03334	***	0.03080	**	0.02357	*	0.02629	*	0.02375	#
*SHORTEN*Large*	0.02262	**	0.02112	**	0.02762	**	0.01685	#	0.01536		0.02185	*
Reconcil	-0.00701		-0.00147		-0.01120		-0.00158		0.00395		-0.00577	
Assets	-0.00067		-0.00013		0.00006		-0.00288		-0.00233		-0.00214	
Readability	0.00218		0.00185		0.00225		0.00147		0.00114		0.00154	
HomeReport	-0.01291		-0.01573		-0.01948	*	-0.00930		-0.01213		-0.01588	
Leverage	-0.00450		-0.02184		-0.01425		-0.00342		-0.02076		-0.01317	
MTB	-0.00393		-0.00372		-0.00454		-0.00139		-0.00118		-0.00200	
Accruals	-0.05474		-0.07623		-0.09329		-0.03937		-0.06088		-0.07792	
AuditFee	-4.07968	*	-4.95264	**	-4.99985	**	-5.64577	**	-6.51892	**	-6.56554	**
ROA	0.03486		0.04394		0.02772		0.01001		0.01910		0.00287	
Sales	-0.00197		-0.00139		-0.00121		0.00332		0.00390		0.00408	
SpecialItems	0.24690	***	0.26335	***	0.28825	***	0.32676	***	0.34322	***	0.36812	***
N	272		272		272		272		272		272	
R^2	0.1536		0.1662		0.1826		0.1222		0.1355		0.1459	
Adj. R^2	0.0638		0.0777		0.0959		0.029		0.0438		0.0552	

Notes:

* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. # Significant at 0.10 for a one-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 5

Multivariate Analysis of Size Effect on Market Reactions to 20-F Filings-Standard Acceleration Sample

$$AVOL = \alpha_1 + \alpha_2 \times Small + \alpha_3 \times Large + \alpha_4 \times SHORTEN*Small + \alpha_5 \times SHORTEN*Medium + \alpha_6 \times SHORTEN*Large + \alpha_7 \times Reconcil + \alpha_8 \times Assets + \alpha_9 \times Readability + \alpha_{10} \times HomeReport + \alpha_{11} \times Leverage + \alpha_{12} \times MTB + \alpha_{13} \times Accruals + \alpha_{14} \times AuditFee + \alpha_{15} \times ROA + \alpha_{16} \times Sales + \alpha_{17} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel C: Abnormal Trading Volume Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	4.61765		4.8337		3.98608		5.28541		5.50145		4.65384	
Small	-1.37040		-1.86709		-1.91421		-1.56158		-2.05827		-2.10539	
Large	-0.33242		-0.74643		-1.15255		-0.01308		-0.42709		-0.83321	
*SHORTEN*Small*	2.77104	#	3.06286	#	3.43346	*	2.98505	#	3.27687	#	3.64747	*
*SHORTEN*Medium*	-0.78198		-0.67216		-0.38224		-0.98972		-0.87990		-0.58998	
*SHORTEN*Large*	-0.33885		0.06322		0.40075		-0.73323		-0.33116		0.00637	
Reconcil	-0.82265		-1.22970		-1.30824		-0.97526		-1.38231		-1.46085	
Assets	-0.05669		-0.09031		0.05741		-0.09342		-0.12704		0.02068	
Readability	-0.31196		-0.37492		-0.37673		-0.32247		-0.38544		-0.38724	
HomeReport	-0.51944		-0.57300		-1.14846		-0.86316		-0.91671		-1.49218	
Leverage	0.74271		0.68026		1.02537		0.88420		0.82174		1.16685	
MTB	0.68350		0.56237		0.46617		0.61827	*	0.49714		0.40094	
Accruals	-4.24599		-4.92468		-6.27316		-5.30032		-5.97901		-7.32748	
AuditFee	-280.316		-279.236		-307.911		-312.621		-311.541		-340.216	
ROA	2.90836		1.88801		1.00214		2.24763		1.22728		0.34141	
Sales	-0.14227		-0.24783		-0.17475		-0.17570		-0.28126		-0.20818	
SpecialItems	0.26496		0.18728		1.14530		1.61599		1.53832		2.49633	
N	272		272		272		272		272		272	
R^2	0.0645		0.0634		0.0657		0.0659		0.0638		0.0662	
Adj. R^2	-0.0348		-0.0360		-0.0334		-0.0333		-0.0356		-0.0329	

Notes:

* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. # Significant at 0.10 for a one-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 5

Multivariate Analysis of Size Effect on Market Reactions to 20-F Filings -Standard Acceleration Sample

Panel D: Change Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
ΔCAR(0,+2)	272	0.0008	-0.0007	0.0474	-0.0231	0.0151
ΔCAR(0,+3)	272	-0.0011	-0.0026	0.0552	-0.0302	0.0220
ΔCAR(0,+4)	272	-0.0050	-0.0019	0.0575	-0.0336	0.0216
ΔCAR(-1,+2)	272	0.0012	-0.0050	0.0541	-0.0274	0.0234
ΔCAR(-1,+3)	272	-0.0005	-0.0013	0.0615	-0.0308	0.0298
ΔCAR(-1,+4)	272	-0.0042	-0.0023	0.0640	-0.0369	0.0252
ΔAVOL(0,+2)	272	0.2466	-0.0607	7.0001	-0.9244	0.8878
ΔAVOL(0,+3)	272	0.1281	-0.0870	7.9734	-1.4397	1.3840
ΔAVOL(0,+4)	272	0.1696	0.1099	8.6072	-1.5563	1.5266
ΔAVOL(-1,+2)	272	0.1611	-0.0453	7.3067	-1.5691	1.3627
ΔAVOL(-1,+3)	272	0.0314	-0.2194	8.3357	-1.9257	1.6797
ΔAVOL(-1,+4)	272	0.0290	-0.1254	8.9102	-2.1646	1.8567
SHORTEN	272	0.5000	0.5000	0.5009	0.0000	1.0000
Small	272	0.4485	0.0000	0.4983	0.0000	1.0000
Medium	272	0.3309	0.0000	0.4714	0.0000	1.0000
Large	272	0.2206	0.0000	0.4154	0.0000	0.0000
LoseReconcil	272	0.0588	0.0000	0.2357	0.0000	0.0000
ΔAccruals	272	0.0013	-0.0020	0.0664	-0.0293	0.0270
ΔAuditFee	272	-0.0003	0.0000	0.0009	-0.0002	0.0000
ΔAssets	272	0.0906	0.0443	0.2720	-0.0441	0.1898
ΔSpecialItems	272	0.0068	0.0000	0.0577	-0.0009	0.0059
ΔROA	272	0.0077	-0.0009	0.0734	-0.0243	0.0239
ΔSales	272	0.0124	-0.0272	0.7659	-0.1689	0.0981
ΔReadability	272	-0.3632	0.0000	1.9669	-0.8000	0.4000
HomeReport1	272	0.0331	0.0000	0.1792	0.0000	0.0000
HomeReport2	272	0.0294	0.0000	0.1693	0.0000	0.0000

Notes: Variables are defined in the appendix.

TABLE 5

Multivariate Analysis of Size Effect on Market Reactions to 20-F Filings-Standard Acceleration Sample

$$\Delta CAR = \alpha_1 + \alpha_2 \times Small + \alpha_3 \times Large + \alpha_4 \times SHORTEN*Small + \alpha_5 \times SHORTEN*Medium + \alpha_6 \times SHORTEN*Large + \alpha_7 \times LoseReconcil + \alpha_8 \times \Delta Accrual + \alpha_9 \times \Delta AuditFee + \alpha_{10} \times \Delta Assets + \alpha_{11} \times \Delta SpecialItems + \alpha_{12} \times \Delta ROA + \alpha_{13} \times \Delta Sales + \alpha_{14} \times \Delta Readability + \alpha_{15} \times HomeReport1 + \alpha_{16} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel E: Abnormal Return Change Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	0.01014		-0.00290		0.00008		0.00296		-0.00796		-0.00541	
Small	-0.01176		-0.00889		-0.00723		-0.00500		-0.00461		0.00346	
Large	-0.02000	*	-0.00883		-0.01136		-0.01620		-0.00748		-0.00792	
*SHORTEN*Small*	-0.01009		0.00334		0.00868		-0.00337		0.00888		0.01122	
*SHORTEN*Medium*	0.00035		0.01867	#	0.01111		0.00915		0.01919	#	0.01155	
*SHORTEN*Large*	0.01619	*	0.01684	*	0.02093	**	0.02220	**	0.02748	**	0.02622	**
LoseReconcil	-0.01321		-0.01666		-0.02714	*	-0.02226		-0.02832	*	-0.03767	**
ΔAccruals	-0.09316	*	-0.07058		-0.02663		-0.00726		-0.02401		-0.00053	
ΔAuditFee	1.63055		3.22432		7.64750	*	-0.53264		1.61009		10.5820	**
ΔAssets	-0.01858		-0.02907	*	-0.03839	**	-0.02477		-0.03344	*	-0.02973	
ΔSpecialItems	0.03835		0.09560		0.01870		0.02741		0.04899		0.00389	
ΔROA	0.09006	*	0.07745		-0.00146		0.08238		0.13532	**	0.05868	
ΔSales	0.01035	**	0.01020	**	0.01213	**	0.01020	**	0.00705		0.01313	**
ΔReadability	-0.00190		-0.00535	***	-0.00339	*	-0.00224		-0.00592	***	-0.00526	***
HomeReport1	0.01758		0.01878		0.00888		0.01644		0.01433		0.00737	
HomeReport2	-0.01407		0.00278		0.000824		0.00341		-0.00272		-0.00405	
N	272		272		272		272		272		272	
R^2	0.1064		0.1262		0.0963		0.1008		0.1502		0.1427	
Adj. R^2	0.0429		0.0640		0.0320		0.0368		0.0897		0.0817	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. # Significant at 0.10 for a one-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 5

Multivariate Analysis of Size Effect on Market Reactions to 20-F Filings-Standard Acceleration Sample

$$\Delta AVOL = \alpha_1 + \alpha_2 \times Small + \alpha_3 \times Large + \alpha_4 \times SHORTEN*Small + \alpha_5 \times SHORTEN*Medium + \alpha_6 \times SHORTEN*Large + \alpha_7 \times LoseReconcil + \alpha_8 \times \Delta Accrual + \alpha_9 \times \Delta AuditFee + \alpha_{10} \times \Delta Assets + \alpha_{11} \times \Delta SpecialItems + \alpha_{12} \times \Delta ROA + \alpha_{13} \times \Delta Sales + \alpha_{14} \times \Delta Readability + \alpha_{15} \times HomeReport1 + \alpha_{16} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel F: Abnormal Trading Volume Change Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	0.07189		-0.46915		-0.59065		-0.04316		-0.58371		-0.81734	
Small	0.22907		0.57709		1.43154		-0.08289		0.25537		1.09507	
Large	-0.05198		0.21705		0.30534		-0.21798		0.03764		0.12921	
*SHORTEN*Small*	3.01416	#	3.15650	#	2.77123		3.44028	*	3.52548	#	3.30943	#
*SHORTEN*Medium*	0.56178		1.36638		1.84317		0.54126		1.31595		1.96016	
*SHORTEN*Large*	0.36831		0.48549		0.25618		0.60780		0.74521		0.60095	
LoseReconcil	0.50059		0.38039		0.26444		0.43865		0.29758		0.02959	
ΔAccruals	-7.50400		-9.88500		-10.3571		-10.0092		-12.2153		-12.0568	
ΔAuditFee	533.925		774.774		1124.85	*	632.716		885.513		1255.11	*
ΔAssets	-2.67999		-2.23834		-1.24078		-1.98571		-1.33219		-0.23718	
ΔSpecialItems	-4.57446		-5.71261		-9.83300		-3.51494		-5.54026		-9.61152	
ΔROA	2.26764		2.75883		1.75453		4.49456		6.90593		4.84497	
ΔSales	0.29551		0.15896		-0.01688		0.06131		-0.09637		-0.31789	
ΔReadability	-0.33200		-0.379		-0.41110		-0.37534		-0.41684		-0.43895	
HomeReport1	-0.03270		0.30581		2.57283		-0.68414		-0.35727		2.02308	
HomeReport2	0.54423		0.52567		1.53304		-0.29133		-0.24621		0.74975	
N	272		272		272		272		272		272	
R^2	0.0606		0.0607		0.0742		0.0601		0.0613		0.0732	
Adj. R^2	-0.0062		-0.0061		0.0083		-0.0068		-0.0055		0.0072	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. # Significant at 0.10 for a one-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 6

Analysis of Annual Report Quality-Full Standard Acceleration Sample

Panel A: Restatement				
	Preacceleration	Acceleration	Within-Firm Difference	
			(*t*-stat)	
Shortened Firms	0.00%	3.68%	3.68%	
(N=136)			(2.27)	**
Matched Sample	0.74%	0.00%	-0.74%	
			(1.00)	
Test of Difference in Differences			4.41%	
			(2.48)	**

Panel B: 20-F/A				
	Preacceleration	Acceleration	Within-Firm Difference	
			(*t*-stat)	
Shortened Firms	16.91%	22.06%	5.15%	
(N=136)			(1.07)	
Matched Sample	16.91%	29.41%	12.50%	
			(2.46)	**
Test of Difference in Differences			-7.35%	
			(1.05)	

Panel C: Readability				
	Preacceleration	Acceleration	Within-Firm Difference	
			(*t*-stat)	
Shortened Firms	12.032	11.597	-0.435	
(N=136)			(-1.89)	*
Matched Sample	12.259	11.968	-0.291	
			(-1.07)	
Test of Difference in Differences			-0.144	
			(-0.60)	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of mean difference. Using the restatement file from Audit Analytics, I classify a firm as a restatement firm if the firm restated its financial statements within 18 months of the original 20-F filing date. Variables are defined in the appendix.

TABLE 7

Analysis of Changes in Restatement-Standard Acceleration Sample by Size

Panel A: Large Firms			
	Preacceleration	Acceleration	Within-Firm Difference (*t*-stat)
Shortened Firms (N=61)	0.00%	0.00%	0.00%
Matched Sample	1.64%	0.00%	-1.64% (1.00)
Test of Difference in Differences			1.64% (1.00)

Panel B: Medium Firms			
	Preacceleration	Acceleration	Within-Firm Difference (*t*-stat)
Shortened Firms (N=45)	0.00%	6.67%	6.67% (1.77) *
Matched Sample	0.00%	0.00%	0.00%
Test of Difference in Differences			6.67% (1.77) *

Panel C: Small Firms			
	Preacceleration	Acceleration	Within-Firm Difference (*t*-stat)
Shortened Firms (N=30)	0.00%	6.67%	6.67% (1.44)
Matched Sample	0.00%	0.00%	0.00%
Test of Difference in Differences			6.67% (1.44)

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of mean difference. Using the restatement file from Audit Analytics, I classify a firm as a restatement firm if the firm restated its financial statements within 18 months of the original 20-F filing date. Variables are defined in the appendix.

TABLE 8

Analysis of Changes in 20F/A Issuance-Standard Acceleration Sample by Size

Panel A: Large Firms				
	Preacceleration	Acceleration	Within-Firm Difference	
			(*t*-stat)	
Shortened Firms	19.67%	16.39%	-3.28%	
(N=61)			(0.47)	
Matched Sample	16.39%	21.31%	4.92%	
			(0.69)	
Test of Difference in Differences			-8.20%	
			(0.82)	

Panel B: Medium Firms				
	Preacceleration	Acceleration	Within-Firm Difference	
			(*t*-stat)	
Shortened Firms	17.78%	26.67%	8.89%	
(N=45)			(1.01)	
Matched Sample	15.56%	40.00%	24.44%	***
			(2.66)	
Test of Difference in Differences			-15.56%	
			(1.22)	

Panel C: Small Firms				
	Preacceleration	Acceleration	Within-Firm Difference	
			(*t*-stat)	
Shortened Firms	10.00%	26.67%	16.67%	
(N=30)			(1.68)	*
Matched Sample	20.00%	30.00%	10.00%	
			(0.89)	
Test of Difference in Differences			6.67%	
			(0.44)	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of mean difference.

TABLE 9

Analysis of Changes in Readability-Standard Acceleration Sample by Size

Panel A: Large Firms			
	Preacceleration	Acceleration	Within-Firm Difference (*t*-stat)
Shortened Firms (N=61)	11.882	11.633	0.249 (0.84)
Matched Sample	12.039	11.908	0.131 (0.27)
Test of Difference in Differences			0.118 (0.37)

Panel B: Medium Firms			
	Preacceleration	Acceleration	Within-Firm Difference (*t*-stat)
Shortened Firms (N=45)	12.222	11.547	0.675 (1.39)
Matched Sample	12.311	11.929	0.382 (1.14)
Test of Difference in Differences			0.293 (0.71)

Panel C: Small Firms			
	Preacceleration	Acceleration	Within-Firm Difference (*t*-stat)
Shortened Firms (N=30)	12.053	11.6	0.453 (0.99)
Matched Sample	12.627	12.147	0.48 (0.85)
Test of Difference in Differences			0.027 (0.04)

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of mean difference.

TABLE 10

Multivariate Analysis of Market Reactions to 20-F Filings -Voluntary Type 1 Acceleration Sample

Panel A: Level Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
CAR(0,+2)	46	-0.0103	-0.0047	0.0710	-0.0284	0.0159
CAR(0,+3)	46	-0.0111	-0.0092	0.0745	-0.0289	0.0167
CAR(0,+4)	46	-0.0116	-0.0101	0.0817	-0.0395	0.0301
CAR(-1,+2)	46	-0.0010	-0.0008	0.1025	-0.0345	0.0198
CAR(-1,+3)	46	-0.0019	-0.0084	0.0969	-0.0335	0.0210
CAR(-1,+4)	46	-0.0023	-0.0062	0.0992	-0.0375	0.0239
AVOL(0,+2)	46	1.8833	-0.6795	9.0063	-1.8047	2.0408
AVOL(0,+3)	46	1.7086	-1.0795	9.7411	-2.7636	1.4793
AVOL(0,+4)	46	1.5850	-1.2614	10.1490	-2.8418	1.7286
AVOL(-1,+2)	46	3.8138	-0.7446	21.1821	-2.3331	1.7835
AVOL(-1,+3)	46	3.6391	-0.9753	21.5324	-3.3533	1.6245
AVOL(-1,+4)	46	3.5155	-1.5854	21.8121	-3.2860	2.0444
SHORTEN	46	0.5000	0.5000	0.5055	0.0000	1.0000
Reconcil	46	0.1087	0.0000	0.3147	0.0000	0.0000
Assets	46	7.4541	7.3537	2.7696	5.2229	9.4429
Readability	46	12.0609	12.0000	1.7788	11.2000	12.8000
HomeReport	46	0.1522	0.0000	0.3632	0.0000	0.0000
Leverage	46	0.4456	0.4390	0.2551	0.2058	0.6177
MTB	46	1.0872	0.7327	1.0359	0.4718	1.1772
Accruals	46	0.0821	0.0519	0.0788	0.0261	0.1061
AuditFee	46	0.0016	0.0007	0.0024	0.0003	0.0018
ROA	46	0.0851	0.0629	0.0862	0.0360	0.0947
Sales	46	0.2136	0.1555	0.2460	0.0636	0.2442
SpecialItems	46	0.0125	0.0000	0.0461	0.0000	0.0081

Notes: Variables are defined in the appendix.

TABLE 10

Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 1 Acceleration Sample

$$CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel B: Abnormal Return Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)	(-1,+3)		(-1,+4)	
Intercept	-0.00551		-0.04756		0.02987		-0.03118	-0.07324		0.00422	
SHORTEN	0.01604		0.01083		0.00931		0.05866	0.05344		0.05192	#
Reconcil	0.03008		0.02937		0.01212		0.07706	0.07635		0.0591	
Assets	-0.00535		-0.00589		-0.01044		-0.02094	-0.02148		-0.02602	*
Readability	0.00773		0.00835		0.00603		0.01431	0.01492		0.0126	
HomeReport	0.00473		0.00577		0.01155		0.03557	0.03661		0.04239	
Leverage	-0.0186		-0.00484		-0.02595		0.14598	0.15974		0.13863	
MTB	-0.01141		-0.00686		-0.00074		-0.02711	-0.02256		-0.01644	
Accruals	-0.29019		-0.29542		-0.50346	*	0.01335	0.00814		-0.19993	
AuditFee	-1.75964		0.63306		-1.71633		1.80732	4.20016		1.84963	
ROA	-0.43484	*	-0.57064	**	-0.44339		-0.44364	-0.57944	*	-0.45219	
Sales	0.024		0.02327		0.0698		-0.08565	-0.08639		-0.03985	
SpecialItems	0.72464	*	0.72674	*	0.41448		0.89086	0.89291		0.58068	
N	46		46		46		46	46		46	
R^2	0.4236		0.4309		0.443		0.3519	0.3895		0.4247	
Adj. R^2	0.0024		0.0150		0.0360		-0.1217	-0.0566		0.0043	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. # Significant at 0.10 for a one-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 10

Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 1 Acceleration Sample

$$AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel C: Abnormal Trading Volume Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)	(-1,+3)	(-1,+4)
Intercept	10.94818		12.00328		9.76477		10.52942	11.58452	9.346
SHORTEN	0.99988		0.66345		0.67606		6.07037	5.73394	5.74654
Reconcil	2.26645		1.79795		1.53348		9.35504	8.88654	8.62208
Assets	-1.50785		-1.7203		-1.74347		-4.17131	-4.38376	-4.40692
Readability	-0.65318		-0.62257		-0.55981		0.09064	0.12124	0.184
HomeReport	-0.9547		-1.37217		-1.57033		2.66458	2.2471	2.04895
Leverage	17.08157	*	18.42463	*	17.89468		40.2123	41.55537	41.02542
MTB	4.4277	**	4.78897	***	5.11893	***	2.07922	2.44049	2.77045
Accruals	7.47527		9.62115		12.60997		73.11745	75.26333	78.25214
AuditFee	-174.112		-304.153		-198.142		740.5429	610.5021	716.5132
ROA	0.6394		-0.55515		-5.17132		-1.30473	-2.49929	-7.11545
Sales	-4.22205		-4.81023		-4.66655		-18.4157	-19.0039	-18.8602
SpecialItems	-37.9681		-41.2851		-43.4413		-77.7966	-81.1136	-83.2697
N	46		46		46		46	46	46
R^2	0.4462		0.4625		0.4763		0.3884	0.3924	0.3992
Adj. R^2	0.0416		0.0697		0.0937		-0.0585	-0.0516	-0.0398

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 10

Multivariate Analysis of Market Reactions to 20-F Filings -Voluntary Type 1 Acceleration Sample

Panel D: Change Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
ΔCAR(0,+2)	46	-0.0076	-0.0047	0.0806	-0.0236	0.0208
ΔCAR(0,+3)	46	-0.0084	-0.0016	0.0721	-0.0332	0.0183
ΔCAR(0,+4)	46	-0.0021	-0.0002	0.0745	-0.0247	0.0302
ΔCAR(-1,+2)	46	0.0014	-0.0023	0.0983	-0.0228	0.0226
ΔCAR(-1,+3)	46	-0.0076	-0.0081	0.0893	-0.0397	0.0228
ΔCAR(-1,+4)	46	-0.0036	0.0008	0.0960	-0.0390	0.0327
ΔAVOL(0,+2)	46	1.5644	-0.3192	8.8549	-1.3551	1.2227
ΔAVOL(0,+3)	46	1.8175	-0.0889	9.3791	-1.5476	2.1830
ΔAVOL(0,+4)	46	1.7919	0.1859	9.6708	-1.6682	2.1702
ΔAVOL(-1,+2)	46	3.5482	-0.2094	21.1041	-1.9144	2.4075
ΔAVOL(-1,+3)	46	3.7739	-0.0678	21.2750	-2.4214	2.5621
ΔAVOL(-1,+4)	46	3.7513	0.1713	21.4388	-2.3773	2.2130
SHORTEN	46	0.5000	0.5000	0.5055	0.0000	1.0000
LoseReconcil	46	0.0217	0.0000	0.1474	0.0000	0.0000
ΔAccruals	46	0.0061	0.0059	0.0991	-0.0513	0.0556
ΔAuditFee	46	-0.0001	0.0000	0.0008	-0.0002	0.0000
ΔAssets	46	0.0576	0.0022	0.2376	-0.0638	0.1634
ΔSpecialItems	46	0.0034	0.0000	0.0542	-0.0016	0.0000
ΔROA	46	0.0050	0.0016	0.0884	-0.0240	0.0377
ΔSales	46	-0.0046	0.0080	0.2391	-0.0913	0.0837
ΔReadability	46	0.4783	0.0000	1.9204	-0.4000	1.6000
HomeReport1	46	0.0435	0.0000	0.2062	0.0000	0.0000
HomeReport2	46	0.0217	0.0000	0.1474	0.0000	0.0000

Notes: Variables are defined in the appendix.

TABLE 10

Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 1 Acceleration Sample

$$\Delta CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accruals + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel E: Abnormal Return Change Analysis

Event Window	(0,+2)	(0,+3)		(0,+4)		(-1,+2)	(-1,+3)		(-1,+4)	
Intercept	0.00784	0.01235		0.01507		-0.00437	0.000697		-0.00572	
SHORTEN	0.0126	0.00202		0.00966		0.02572	0.01759		0.03466	
LoseReconcil	-0.03169	-0.01623		-0.03298		-0.01579	-0.00867		-0.01358	
ΔAccruals	0.17335	0.42861	***	0.39848	***	0.31679	0.53141	***	0.55435	***
ΔAuditFee	-7.65941	-9.41241		-20.5038		-9.64335	-7.78977		-19.5112	
ΔAssets	-0.0149	-0.03151		-0.08883		-0.10279	-0.10839		-0.1522	*
ΔSpecialItems	-0.57721	-0.45472		-0.07759		-0.17515	-0.34078		-0.18638	
ΔROA	0.19146	0.10709		0.03756		-0.05673	0.014		-0.10176	
ΔSales	-0.02821	-0.00189		0.00805		0.000236	0.01499		0.01441	
ΔReadability	0.00218	-0.0013		-0.0045		0.00253	-0.00149		-0.00499	
HomeReport1	0.05736	0.07234		0.09354		0.04459	0.05007		0.07553	
HomeReport2	-0.03372	-0.01407		0.02301		-0.02297	-0.00627		0.04692	
N	46	46		46		46	46		46	
R^2	0.1867	0.3255		0.3752		0.1796	0.3911		0.4262	
Adj. R^2	-0.1805	0.0209		0.0930		-0.1909	0.1161		0.1671	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 10

Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 1 Acceleration Sample

$$\Delta AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accruals + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel F: Abnormal Trading Volume Change Analysis

Event Window	(0,+2)	(0,+3)	(0,+4)	(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	3.58487	4.42259	5.04914	-0.26898		0.40366		1.04384	
SHORTEN	0.55745	-0.20661	-0.45911	7.6458		7.12305		6.76634	
LoseReconcil	-3.70356	-5.94301	-7.88517	-6.71755		-9.22756		-11.0693	
ΔAccruals	28.85258	31.24982	30.81476	74.39725		76.29328	*	76.24299	*
ΔAuditFee	-842.954	-1286.41	-1347.59	-3830.72		-4083.69		-4179.43	
ΔAssets	-8.8891	-8.21622	-7.57846	-30.5315	*	-30.0692		-29.6011	
ΔSpecialItems	-15.3157	-16.1505	-19.5888	61.16787		58.11124		53.39548	
ΔROA	-5.37011	-7.28354	-7.0158	-91.6985		-91.8519		-90.9154	*
ΔSales	-5.45891	-7.06592	-7.96597	0.1811		-1.85267		-2.70869	
ΔReadability	-0.50269	-0.43991	-0.38522	-0.64195		-0.59663		-0.56738	
HomeReport1	8.29859	7.49234	5.58662	13.51135		12.73139		11.20553	
HomeReport2	-0.57947	-0.811	-1.04771	10.46309		10.25252		9.77708	
N	46	46	46	46		46		46	
R^2	0.1579	0.1539	0.1551	0.3265		0.3167		0.308	
Adj. R^2	-0.2224	-0.2282	-0.2264	0.0223		0.0080		-0.0045	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 11

Multivariate Analysis of Market Reactions to 20-F Filings -Voluntary Type 2 Acceleration Sample

Panel A: Level Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
CAR(0,+2)	56	0.0060	0.0015	0.0585	-0.0236	0.0264
CAR(0,+3)	56	0.0124	0.0122	0.0731	-0.0347	0.0370
CAR(0,+4)	56	0.0184	0.0077	0.0864	-0.0201	0.0362
CAR(-1,+2)	56	0.0060	-0.0039	0.0688	-0.0339	0.0187
CAR(-1,+3)	56	0.0123	0.0029	0.0871	-0.0283	0.0388
CAR(-1,+4)	56	0.0184	0.0055	0.0995	-0.0197	0.0440
AVOL(0,+2)	56	0.9172	-0.6413	3.9660	-1.2595	0.5898
AVOL(0,+3)	56	1.8184	-0.7386	7.2489	-1.4988	0.8184
AVOL(0,+4)	56	2.2780	-0.6343	8.9377	-1.8369	0.9514
AVOL(-1,+2)	56	0.9558	-0.8550	4.4861	-1.7332	1.1030
AVOL(-1,+3)	56	1.8569	-0.6136	7.5880	-1.9562	2.6888
AVOL(-1,+4)	56	2.3166	-0.8970	9.2652	-2.2269	2.4759
SHORTEN	56	0.5000	0.5000	0.5045	0.0000	1.0000
Reconcil	56	0.1071	0.0000	0.3121	0.0000	0.0000
Assets	56	8.0441	7.3259	2.4699	6.2856	9.4606
Readability	56	12.4643	12.4000	2.1025	11.2000	13.2000
HomeReport	56	0.2143	0.0000	0.4140	0.0000	0.0000
Leverage	56	0.5141	0.5088	0.2623	0.3232	0.7001
MTB	56	1.2500	0.7265	1.8884	0.3732	1.5429
Accruals	56	0.0754	0.0592	0.0526	0.0350	0.1194
AuditFee	56	0.0010	0.0006	0.0010	0.0003	0.0011
ROA	56	0.0889	0.0578	0.1757	0.0270	0.0971
Sales	56	0.2611	0.1526	0.3362	0.0494	0.3320
SpecialItems	56	0.0102	0.0017	0.0246	0.0000	0.0071

Notes: Variables are defined in the appendix.

TABLE 11

Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 2 Acceleration Sample

$$CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel B: Abnormal Return Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	0.13268		0.11177		0.04036		0.12884		0.10792		0.03653	
SHORTEN	-0.01645		-0.0217		-0.01361		-0.02421		-0.02946	#	-0.02137	
Reconcil	0.01275		-0.00481		0.02322		-0.00511		-0.02267		0.00536	
Assets	-0.01147	**	-0.00235		-0.00204		-0.01054	*	-0.00142		-0.00111	
Readability	-0.00808	**	-0.006		-0.0046		-0.00829	*	-0.00622		-0.00481	
HomeReport	-0.0472	*	-0.02391		-0.01473		-0.05181	*	-0.02852		-0.01934	
Leverage	0.06702		-0.0203		0.08132		0.04713		-0.04018		0.06143	
MTB	0.00721		0.01054	*	0.00982		0.00923	*	0.01256	**	0.01184	*
Accruals	-0.1142		-0.27949		-0.39915	*	-0.10729		-0.27255		-0.39222	
AuditFee	-17.7395		13.39944		26.90475		-13.6401		17.49929		31.00252	
ROA	-0.06072		-0.17755	***	-0.14409	**	-0.05538		-0.17222	*	-0.13875	*
Sales	0.03749		0.02105		0.07838	**	0.03012		0.01368		0.07101	*
SpecialItems	-0.38292		-0.40416		-0.63331		-0.39091		-0.41215		-0.64134	
N	56		56		56		56		56		56	
R^2	0.5561		0.6415		0.6286		0.6023		0.6604		0.6536	
Adj. R^2	0.3024		0.4367		0.4164		0.3750		0.4664		0.4557	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. # Significant at 0.10 for a one-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 11

Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 2 Acceleration Sample

$$AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel C: Abnormal Trading Volume Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	-12.196		-23.701		-28.0764	**	-15.9855	*	-27.4905	**	-31.8659	**
SHORTEN	1.21679		-0.60119		-1.44197		1.13594		-0.68204		-1.52282	
Reconcil	-0.10096		-4.6107		-6.49153		-0.47831		-4.98804		-6.86888	
Assets	0.89759	*	1.98228	***	2.40761	***	1.24491	**	2.3296	***	2.75492	***
Readability	0.4543		0.65245		0.7738		0.4343		0.63245		0.7538	
HomeReport	-1.17007		-0.88108		-2.12655		-1.79978		-1.51079		-2.75626	
Leverage	0.87479		-4.12477		-5.90997		1.21236		-3.78721		-5.5724	
MTB	-0.58208		-0.31451		-0.49039		-0.62987		-0.36229		-0.53817	
Accruals	15.33268		-3.62463		-3.10159		16.25706		-2.70025		-2.17721	
AuditFee	1322.318		5586.767	***	6741.863	***	1673.859		5938.308	***	7093.405	***
ROA	2.13769		-1.87129		-2.75093		3.76487		-0.24412		-1.12375	
Sales	-1.55104		-5.84757	*	-6.71094	*	-1.64532		-5.94184	*	-6.80522	*
SpecialItems	-16.4583		-26.8927		-26.2152		-16.819		-27.2534		-26.5759	
R^2	0.3333		0.5736		0.5721		0.3563		0.5727		0.5715	
Adj. R^2	-0.0476		0.3299		0.3275		-0.0115		0.3286		0.3267	

Notes:

* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 11

Multivariate Analysis of Market Reactions to 20-F Filings -Voluntary Type 2 Acceleration Sample

Panel D: Change Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
ΔCAR(0,+2)	56	-0.0094	-0.0017	0.0674	-0.0279	0.0144
ΔCAR(0,+3)	56	-0.0054	-0.0033	0.0856	-0.0345	0.0288
ΔCAR(0,+4)	56	0.0018	-0.0042	0.0942	-0.0441	0.0316
ΔCAR(-1,+2)	56	-0.0159	-0.0062	0.0851	-0.0380	0.0216
ΔCAR(-1,+3)	56	-0.0091	0.0022	0.1020	-0.0458	0.0255
ΔCAR(-1,+4)	56	-0.0041	-0.0070	0.1048	-0.0472	0.0253
ΔAVOL(0,+2)	56	-0.1381	0.2146	5.4468	-1.6291	1.0240
ΔAVOL(0,+3)	56	-0.1708	-0.3168	9.4187	-2.3886	1.7172
ΔAVOL(0,+4)	56	-0.4303	-0.7798	11.1543	-3.1855	1.3719
ΔAVOL(-1,+2)	56	-0.4296	-0.0946	6.6140	-2.1156	1.4957
ΔAVOL(-1,+3)	56	-0.5014	-0.3174	10.4345	-3.2207	1.5264
ΔAVOL(-1,+4)	56	-0.7383	-0.5333	12.1031	-3.7216	1.4921
SHORTEN	56	0.5000	0.5000	0.5045	0.0000	1.0000
LoseReconcil	56	0.0179	0.0000	0.1336	0.0000	0.0000
ΔAccruals	56	-0.0027	-0.0022	0.0522	-0.0209	0.0212
ΔAuditFee	56	-0.0003	0.0000	0.0009	-0.0002	0.0000
ΔAssets	56	0.0944	0.0750	0.1725	-0.0165	0.1930
ΔSpecialItems	56	-0.0022	0.0000	0.0409	-0.0044	0.0028
ΔROA	56	-0.0026	-0.0017	0.1729	-0.0319	0.0181
ΔSales	56	-1.2498	-0.0346	8.6029	-0.1542	0.0955
ΔReadability	56	-0.2857	-0.2000	1.8302	-0.8000	0.8000
HomeReport1	56	0.0357	0.0000	0.1873	0.0000	0.0000
HomeReport2	56	0.0357	0.0000	0.1873	0.0000	0.0000

Notes: Variables are defined in the appendix.

TABLE 11

Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 2 Acceleration Sample

$$\Delta CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accruals + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel E: Abnormal Return Change Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	0.01038		0.07771	**	0.08818	**	0.01153		0.08276	**	0.09366	**
SHORTEN	0.00217		-0.02807		-0.02524		0.00269		-0.02284		-0.01898	
LoseReconcil	0.00257		-0.03014		-0.03815		-0.00663		-0.05303		-0.05424	
ΔAccruals	0.08778		0.07087		0.41108		0.15656		0.08867		0.4516	
ΔAuditFee	-1.72382		8.24538		0.23584		-4.49139		-0.3551		-5.96001	
ΔAssets	-0.02815		-0.05068		-0.07651		0.00269		-0.04434		-0.04764	
ΔSpecialItems	0.20754		-0.14465		-0.63151		0.35394		-0.05093		-0.6218	
ΔROA	0.08165		0.10715		0.07589		0.02808		0.05455		0.02284	
ΔSales	0.000305		-0.00029		0.00113		-0.00051		-0.00084		0.000482	
ΔReadability	-0.0039		-0.00648		-0.00411		-0.00405		-0.00896		-0.00492	
HomeReport1	0.16506	***	0.11846	*	0.17357	**	0.17759	***	0.13559		0.1847	**
HomeReport2	-0.01831		-0.04361		-0.0561		0.00999		-0.01681		-0.02179	
N	56		56		56		56		56		56	
R^2	0.4402		0.3152		0.3659		0.3617		0.2663		0.3491	
Adj. R^2	0.2490		0.0813		0.1494		0.1437		0.0158		0.1268	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 11

Multivariate Analysis of Market Reactions to 20-F Filings-Voluntary Type 2 Acceleration Sample

$$\Delta AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accruals + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel F: Abnormal Trading Volume Change Analysis

Event Window	(0,+2)	(0,+3)	(0,+4)	(-1,+2)	(-1,+3)	(-1,+4)
Intercept	0.50759	5.85465	6.64395	-0.50644	4.71509	5.55623
SHORTEN	1.14214	-0.2551	-0.125	1.14492	-0.1699	-0.0069
LoseReconcil	10.13827	3.69786	1.75731	12.35373	6.12499	4.09833
ΔAccruals	-9.51423	-20.2625	-33.872	-14.7802	-24.2765	-38.9666
ΔAuditFee	-1451.69	-1444.34	-1997.32	-1513.11	-1527.95	-2123.82
ΔAssets	1.04938	-3.64991	-6.30246	1.10733	-3.23931	-6.45271
ΔSpecialItems	14.15396	-16.6525	-11.8729	8.67161	-22.4222	-17.3844
ΔROA	-3.04336	-3.6608	-4.54347	-3.07369	-3.67821	-4.39139
ΔSales	-0.00369	0.00329	0.00893	-0.01987	-0.0089	-0.00282
ΔReadability	0.24961	-0.30134	-0.41676	0.26884	-0.25714	-0.3869
HomeReport1	3.09611	6.78293	8.79293	3.20218	6.7828	8.88977
HomeReport2	1.75395	1.51154	1.93593	2.7718	3.5056	4.0008
N	56	56	56	56	56	56
R^2	0.2295	0.1736	0.1719	0.1936	0.1554	0.1577
Adj. R^2	-0.0336	-0.1086	-0.1109	-0.0818	-0.1329	-0.1299

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 12

Multivariate Analysis of Market Reactions to 20-F Filings -Chinese Firms Sample

Panel A: Level Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
CAR(0,+2)	96	-0.0018	-0.0069	0.0583	-0.0225	0.0191
CAR(0,+3)	96	0.0046	-0.0054	0.0589	-0.0269	0.0257
CAR(0,+4)	96	0.0030	-0.0019	0.0649	-0.0237	0.0281
CAR(-1,+2)	96	0.0037	0.0010	0.0608	-0.0225	0.0269
CAR(-1,+3)	96	0.0102	0.0001	0.0606	-0.0163	0.0454
CAR(-1,+4)	96	0.0086	0.0054	0.0675	-0.0171	0.0416
AVOL(0,+2)	96	0.6817	-1.0169	8.5527	-1.5352	-0.3049
AVOL(0,+3)	96	0.7058	-1.1919	9.2819	-2.0271	-0.0801
AVOL(0,+4)	96	0.6630	-1.6211	9.8171	-2.8077	0.0126
AVOL(-1,+2)	96	0.5544	-1.2152	8.6256	-2.0158	0.0394
AVOL(-1,+3)	96	0.5784	-1.3929	9.3982	-2.4731	0.1211
AVOL(-1,+4)	96	0.5356	-1.8233	9.9511	-3.0625	-0.3171
SHORTEN	96	0.5000	0.5000	0.5026	0.0000	1.0000
Reconcil	96	0.0313	0.0000	0.1749	0.0000	0.0000
Assets	96	6.6129	6.0094	1.9330	5.3092	7.3303
Readability	96	11.7958	11.6000	1.5068	10.8000	12.6000
HomeReport	96	0.1458	0.0000	0.3548	0.0000	0.0000
Leverage	96	0.3456	0.2828	0.2162	0.1906	0.5279
MTB	96	1.2011	0.7776	1.2131	0.4809	1.4429
Accruals	96	0.0809	0.0628	0.0745	0.0289	0.1015
AuditFee	96	0.0026	0.0020	0.0026	0.0008	0.0035
ROA	96	0.1025	0.0784	0.0930	0.0388	0.1394
Sales	96	0.5735	0.2318	1.1705	0.1145	0.4802
SpecialItems	96	0.0191	0.0021	0.0572	0.0000	0.0137

Notes: Variables are defined in the appendix.

TABLE 12

Multivariate Analysis of Market Reactions to 20-F Filings-Chinese Firms Sample

$$CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel B: Abnormal Return Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	-0.08393		-0.008		-0.08389		-0.07279		0.00313		-0.07277	
SHORTEN	0.03587	***	0.04447	***	0.05102	***	0.02384	*	0.03244	**	0.03899	**
Reconcil	-0.02332		-0.01437		-0.02799		-0.03492		-0.02597		-0.03959	
Assets	0.0051		0.00593		0.00907		0.00543		0.00627		0.0094	
Readability	0.000683		-0.00283		-0.00064		0.000901		-0.00261		-0.00042	
HomeReport	-0.01126		-0.0261		-0.03307		0.00486		-0.00998		-0.01695	
Leverage	0.0355		-0.00887		0.01987		0.01795		-0.02643		0.00231	
MTB	-0.00449		-0.00152		-0.00102		-0.00373		-0.00076		-0.00026	
Accruals	0.07427		-0.03569		-0.06905		0.02008		-0.0899		-0.12325	
AuditFee	-1.00086		-3.89154		-4.02713		-0.75019		-3.64095		-3.77567	
ROA	0.03957		0.01624		-0.02009		0.04064		0.01733		-0.01902	
Sales	-0.00103		0.00555		0.000573		0.0052		0.01178		0.0068	
SpecialItems	-0.14892		0.08114		0.08973		0.01405		0.24412		0.2527	
N	96		96		96		96		96		96	
R^2	0.2733		0.2726		0.3431		0.2316		0.2532		0.3039	
Adj. R^2	0.0543		0.0534		0.1451		0.0000		0.0281		0.0941	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 12

Multivariate Analysis of Market Reactions to 20-F Filings-Chinese Firms Sample

$$AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel C: Abnormal Trading Volume Level Analysis

Event Window	(0,+2)		(0,+3)	(0,+4)		(-1,+2)	(-1,+3)	(-1,+4)
Intercept	11.61305		14.96532	13.27655		14.39511	17.74739	16.05861
SHORTEN	1.98305		2.47589	3.38986	#	1.41843	1.91127	2.82524
Reconcil	-6.65058		-7.52157	-7.38659		-6.73664	-7.60763	-7.47264
Assets	-0.54549		-0.55565	-0.48173		-0.75884	-0.769	-0.69508
Readability	-0.93563		-1.24769	-1.17961		-1.03571	-1.34777	-1.2797
HomeReport	-0.34111		-0.72824	-2.42931		-0.23833	-0.62545	-2.32653
Leverage	5.17088		5.35173	7.84177		5.93331	6.11416	8.6042
MTB	1.63822	*	1.43912	1.28006		1.46664	1.26754	1.10848
Accruals	-6.55156		-11.1711	-16.0817		-4.81387	-9.43342	-14.3441
AuditFee	-287.334		-314.705	-373.875		-307.602	-334.973	-394.143
ROA	-6.27668		-8.64703	-9.31176		-8.75351	-11.1239	-11.7886
Sales	-0.01376		0.09813	0.08821		-0.16922	-0.05733	-0.06724
SpecialItems	1.75961		10.61102	14.13924		1.61535	10.46676	13.99498
N	96		96	96		96	96	96
R^2	0.1896		0.2004	0.2058		0.1847	0.1958	0.2006
Adj. R^2	-0.0546		-0.0406	-0.0335		-0.0610	-0.0466	-0.0404

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. # Significant at 0.10 for a one-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 12

Multivariate Analysis of Market Reactions to 20-F Filings -Chinese Firms Sample

Panel D: Change Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
ΔCAR(0,+2)	96	-0.0011	-0.0011	0.0481	-0.0237	0.0119
ΔCAR(0,+3)	96	-0.0074	-0.0078	0.0570	-0.0356	0.0190
ΔCAR(0,+4)	96	-0.0163	-0.0084	0.0627	-0.0506	0.0169
ΔCAR(-1,+2)	96	-0.0013	-0.0076	0.0530	-0.0306	0.0247
ΔCAR(-1,+3)	96	-0.0097	-0.0098	0.0553	-0.0340	0.0271
ΔCAR(-1,+4)	96	-0.0172	-0.0150	0.0619	-0.0615	0.0168
ΔAVOL(0,+2)	96	0.3295	-0.1602	9.3945	-1.0912	0.6622
ΔAVOL(0,+3)	96	0.2161	-0.2414	10.6723	-1.4628	0.9762
ΔAVOL(0,+4)	96	0.1514	-0.1259	11.5300	-2.0611	1.2249
ΔAVOL(-1,+2)	96	0.2640	-0.0092	9.5027	-1.8515	1.3331
ΔAVOL(-1,+3)	96	0.1663	-0.2985	10.9170	-1.8949	1.6306
ΔAVOL(-1,+4)	96	0.0674	-0.1922	11.7455	-2.3565	1.8567
SHORTEN	96	0.5000	0.5000	0.5026	0.0000	1.0000
LoseReconcil	96	0.0104	0.0000	0.1021	0.0000	0.0000
ΔAccruals	96	0.0015	-0.0032	0.0819	-0.0312	0.0300
ΔAuditFee	96	-0.0005	-0.0001	0.0017	-0.0010	0.0000
ΔAssets	96	0.1740	0.1467	0.3133	-0.0146	0.2826
ΔSpecialItems	96	0.0046	0.0000	0.0674	0.0000	0.0122
ΔROA	96	-0.0016	-0.0080	0.0748	-0.0434	0.0251
ΔSales	96	0.1803	-0.0165	1.0888	-0.1830	0.1375
ΔReadability	96	-0.2125	0.0000	1.3916	-0.8000	0.4000
HomeReport1	96	0.0208	0.0000	0.1436	0.0000	0.0000
HomeReport2	96	0.0208	0.0000	0.1436	0.0000	0.0000

Notes: Variables are defined in the appendix.

TABLE 12

Multivariate Analysis of Market Reactions to 20-F Filings-Chinese Firms Sample

$$\Delta CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accruals + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel E: Abnormal Return Change Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)	(-1,+3)	(-1,+4)	
Intercept	-0.00617		-0.01243		-0.02144	*	-0.00648	-0.01567	-0.02118	
SHORTEN	0.00574		0.01371		0.02414	*	0.01275	0.01459	0.01896	
LoseReconcil	-0.08143		-0.01235		-0.10216		-0.08209	-0.02882	-0.12565	**
ΔAccruals	-0.1905	**	-0.19547	**	-0.15447	*	-0.08395	-0.11017	-0.11917	
ΔAuditFee	0.43487		3.7049		9.68904	**	-2.67951	1.09121	9.70724	**
ΔAssets	-0.00921		-0.04008		-0.04296		-0.03222	-0.04084	-0.03751	
ΔSpecialItems	-0.08105		-0.07876		-0.23206	*	-0.03849	-0.03945	-0.16907	
ΔROA	0.09193		0.14872		0.14639		0.01468	0.13228	0.11532	
ΔSales	0.01045		0.0158	**	0.01939	**	0.0091	0.00536	0.01449	*
ΔReadability	-0.00121		-0.00267		0.00184		-0.00135	-0.00335	-0.00255	
HomeReport1	0.02011		0.01275		0.03526		-0.002	-0.01675	0.00968	
HomeReport2	0.01568		0.06416		0.08464	*	0.05786	0.02058	0.03996	
N	96		96		96		96	96	96	
R^2	0.1842		0.2082		0.2463		0.139	0.1758	0.21	
Adj. R^2	0.0431		0.0714		0.1160		-0.0098	0.0333	0.0734	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 12

Multivariate Analysis of Market Reactions to 20-F Filings-Chinese Firms Sample

$$\Delta AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accruals + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel F: Abnormal Trading Volume Change Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	-0.09307		-0.54392		-0.61793		-0.3765		-0.69213		-0.80365	
SHORTEN	2.95941	#	3.98359	*	4.18025	*	3.22375	#	4.27624	*	4.4797	*
LoseReconcil	-5.06017		-7.70171		-6.73522		-3.69218		-6.29497		-5.35024	
ΔAccruals	-5.17548		-11.4904		-13.3847		-9.61103		-14.9117		-16.553	
ΔAuditFee	280.1423		406.5079		687.6006		350.1517		480.2208		760.6799	
ΔAssets	-4.06693		-4.92737		-4.49383		-4.50129		-5.14398		-4.69306	
ΔSpecialItems	-23.6588		-28.7617		-38.1993		-20.1527		-27.2047		-36.9595	
ΔROA	1.40647		4.76279		3.11504		0.92318		6.24514		4.93045	
ΔSales	0.9393		1.18772		1.13242		0.95228		1.15248		1.11119	
ΔReadability	-0.76973		-0.89633		-1.03043		-0.81952		-0.85632		-0.9951	
HomeReport1	3.93935		4.58558		12.53209		4.41422		4.83529		12.87483	
HomeReport2	6.72801		9.00639		11.94233		5.80492		8.21738		11.06497	
N	96		96		96		96		96		96	
R^2	0.1194		0.1405		0.191		0.1241		0.1428		0.1927	
Adj. R^2	-0.0328		-0.008		0.0511		-0.0273		-0.0054		0.0532	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. # Significant at 0.10 for a one-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 13

Multivariate Analysis of Market Reactions to 20-F Filings -Non-Chinese Firms Sample

Panel A: Level Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
CAR(0,+2)	176	0.0023	-0.0008	0.0502	-0.0169	0.0226
CAR(0,+3)	176	0.0029	-0.0013	0.0586	-0.0219	0.0274
CAR(0,+4)	176	0.0051	0.0018	0.0628	-0.0233	0.0332
CAR(-1,+2)	176	0.0034	0.0016	0.0626	-0.0219	0.0269
CAR(-1,+3)	176	0.0040	0.0003	0.0713	-0.0245	0.0316
CAR(-1,+4)	176	0.0062	0.0056	0.0754	-0.0260	0.0399
AVOL(0,+2)	176	0.5051	-0.7542	4.8181	-1.5142	1.2363
AVOL(0,+3)	176	0.5373	-0.9342	5.4802	-1.9473	1.7211
AVOL(0,+4)	176	0.4791	-1.1134	5.9684	-2.4127	1.9929
AVOL(-1,+2)	176	0.5620	-0.7303	5.2805	-1.8587	1.5744
AVOL(-1,+3)	176	0.5941	-0.9336	5.9653	-2.2486	1.8840
AVOL(-1,+4)	176	0.5359	-1.1904	6.4596	-2.7218	2.1272
SHORTEN	176	0.5000	0.5000	0.5014	0.0000	1.0000
Reconcil	176	0.1989	0.0000	0.4003	0.0000	0.0000
Assets	176	8.1212	8.0831	2.4047	6.4874	9.6655
Readability	176	11.7750	11.6000	2.2366	10.8000	12.4000
HomeReport	176	0.3182	0.0000	0.4671	0.0000	1.0000
Leverage	176	0.5609	0.5768	0.2474	0.3606	0.7912
MTB	176	1.3406	0.9193	1.3964	0.4211	1.6128
Accruals	176	0.0753	0.0567	0.0653	0.0282	0.1009
AuditFee	176	0.0010	0.0005	0.0018	0.0002	0.0011
ROA	176	0.0704	0.0468	0.0815	0.0162	0.0891
Sales	176	0.2144	0.1261	0.3103	0.0438	0.2675
SpecialItems	176	0.0162	0.0003	0.0504	0.0000	0.0083

Notes: Variables are defined in the appendix.

TABLE 13

Multivariate Analysis of Market Reactions to 20-F Filings-Non-Chinese Firms Sample

$$CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel B: Abnormal Return Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	-0.03793		-0.03798		-0.05347		0.0008866		0.0008366		-0.01465	
SHORTEN	0.00898		0.00554		0.0081		0.00929		0.00586		0.00842	
Reconcil	0.00275		0.0109		0.0006112		0.00841		0.01656		0.00628	
Assets	-0.00196		-0.00158		0.0007333		-0.00323		-0.00285		-0.000533	
Readability	0.00234		0.00272		0.00282		0.00106		0.00144		0.00154	
HomeReport	-0.01072		-0.01321		-0.01683		-0.00741		-0.0099		-0.01352	
Leverage	-0.00146		-0.00501		-0.009		0.00901		0.00545		0.00146	
MTB	-0.00367		-0.00465		-0.00666	*	-0.000909		-0.00189		-0.0039	
Accruals	-0.13491	**	-0.16501	**	-0.17587	**	-0.07405		-0.10417		-0.11502	
AuditFee	-5.59517	**	-7.38764	**	-6.9831	**	-9.72172	***	-11.51446	***	-11.10948	***
ROA	0.04679		0.06907		0.07168		-0.01107		0.01122		0.01384	
Sales	0.01176		0.00584		0.01255		0.0381	**	0.03218	*	0.03889	*
SpecialItems	0.36191	***	0.3888	***	0.40562	***	0.40812	***	0.43502	***	0.45184	***
N	176		176		176		176		176		176	
R^2	0.255		0.2433		0.2279		0.1888		0.1815		0.169	
Adj. R^2	0.1534		0.1401		0.1226		0.0781		0.0699		0.0556	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 13

Multivariate Analysis of Market Reactions to 20-F Filings-Non-Chinese Firms Sample

$$AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times Reconcil + \alpha_4 \times Assets + \alpha_5 \times Readability + \alpha_6 \times HomeReport + \alpha_7 \times Leverage + \alpha_8 \times MTB + \alpha_9 \times Accruals + \alpha_{10} \times AuditFee + \alpha_{11} \times ROA + \alpha_{12} \times Sales + \alpha_{13} \times SpecialItems + \Sigma\, industry + \Sigma\, year + \varepsilon.$$

Panel C: Abnormal Trading Volume Level Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)	(-1,+2)		(-1,+3)	(-1,+4)
Intercept	1.91742		2.3901		2.00427	1.76775		2.24043	1.85461
SHORTEN	-0.72551		-0.45489		-0.35116	-0.74449		-0.47388	-0.37015
Reconcil	-0.0217		-0.43184		-0.40025	-0.28563		-0.69578	-0.66418
Assets	0.16521		0.17265		0.26665	0.2203		0.22773	0.32174
Readability	-0.15866		-0.19138		-0.2203	-0.15685		-0.18958	-0.21850
HomeReport	-0.20873		-0.23631		-0.54516	-0.68919		-0.71677	-1.02563
Leverage	0.23766		-0.0934		-0.32356	-0.04184		-0.3729	-0.60306
MTB	0.20096		0.11162		0.11078	0.14032		0.05098	0.05015
Accruals	-9.31917		-10.0703		-10.8979	-10.7758		-11.5269	-12.3545
AuditFee	-147.406		-173.227		-160.218	-141.548		-167.368	-154.359
ROA	12.10237	**	12.16742	*	11.07151	12.45197	*	12.51702	11.42111
Sales	0.07831		0.09302		0.40887	0.32643		0.34114	0.65699
SpecialItems	5.23721		3.97502		3.70916	5.08835		3.82616	3.5603
N	176		176		176	176		176	176
R^2	0.0619		0.0562		0.0585	0.0624		0.0575	0.06140
Adj. R^2	-0.0660		-0.0725		-0.0699	-0.0655		-0.071	-0.0670

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 13

Multivariate Analysis of Market Reactions to 20-F Filings -Non-Chinese Firms Sample

Panel D: Change Analysis Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Q1	Q3
ΔCAR(0,+2)	176	0.0019	-0.0007	0.0471	-0.0224	0.0163
ΔCAR(0,+3)	176	0.0023	0.0010	0.0541	-0.0271	0.0226
ΔCAR(0,+4)	176	0.0012	0.0008	0.0537	-0.0250	0.0229
ΔCAR(-1,+2)	176	0.0025	-0.0015	0.0548	-0.0241	0.0226
ΔCAR(-1,+3)	176	0.0045	0.0001	0.0643	-0.0242	0.0335
ΔCAR(-1,+4)	176	0.0029	0.0009	0.0641	-0.0313	0.0283
ΔAVOL(0,+2)	176	0.2013	0.0320	5.2881	-0.7927	0.9942
ΔAVOL(0,+3)	176	0.0801	-0.0589	6.0508	-1.3961	1.4935
ΔAVOL(0,+4)	176	0.1795	0.1480	6.5235	-1.3763	1.6305
ΔAVOL(-1,+2)	176	0.1050	-0.0586	5.8005	-1.4184	1.3671
ΔAVOL(-1,+3)	176	-0.0422	-0.1333	6.5489	-1.9257	1.7037
ΔAVOL(-1,+4)	176	0.0080	0.0002	6.9319	-2.1620	1.8383
SHORTEN	176	0.5000	0.5000	0.5014	0.0000	1.0000
LoseReconcil	176	0.0852	0.0000	0.2800	0.0000	0.0000
ΔAccruals	176	0.0010	-0.0006	0.0596	-0.0266	0.0270
ΔAuditFee	176	-0.0002	0.0000	0.0009	-0.0001	0.0000
ΔAssets	176	0.0457	0.0167	0.2476	-0.0527	0.1227
ΔSpecialItems	176	0.0067	0.0000	0.0594	-0.0010	0.0039
ΔROA	176	0.0126	0.0002	0.0785	-0.0140	0.0239
ΔSales	176	-0.1279	-0.0332	0.7698	-0.1600	0.0717
ΔReadability	176	-0.4455	0.0000	2.2182	-0.8000	0.4000
HomeReport1	176	0.0398	0.0000	0.1960	0.0000	0.0000
HomeReport2	176	0.0341	0.0000	0.1820	0.0000	0.0000

Notes: Variables are defined in the appendix.

TABLE 13

Multivariate Analysis of Market Reactions to 20-F Filings-Non-Chinese Firms Sample

$$\Delta CAR = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accruals + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel E: Abnormal Return Change Analysis

Event Window	(0,+2)		(0,+3)		(0,+4)		(-1,+2)		(-1,+3)		(-1,+4)	
Intercept	-0.00364		-0.00753		-0.00124		-0.00716		-0.00977		-0.00376	
SHORTEN	0.00873		0.01869	**	0.01458	*	0.01573	*	0.02588	***	0.02	**
LoseReconcil	-0.01353		-0.02571	*	-0.03173	**	-0.02254		-0.03612	**	-0.04077	**
ΔAccruals	0.00288		0.05306		0.12401		0.07794		0.05733		0.11942	
ΔAuditFee	6.4651		5.6049		5.72883		3.26281		4.41429		6.94511	
ΔAssets	-0.01072		-0.01406		-0.01936		-0.00511		-0.01082		-0.00404	
ΔSpecialItems	0.11321	*	0.11881		0.04336		0.06283		0.07004		0.02558	
ΔROA	0.13153	**	0.07544		-0.03424		0.1389	**	0.15179	**	0.05858	
ΔSales	0.00381		0.00218		0.00202		0.00799		0.00827		0.00923	
ΔReadability	-0.00256		-0.00604	***	-0.00442	***	-0.00281		-0.0063	***	-0.00572	***
HomeReport1	0.01683		0.02178		0.00143		0.02044		0.02312		0.00521	
HomeReport2	-0.01717		-0.01159		-0.01776		-0.01366		-0.00902		-0.01582	
N	176		176		176		176		176		176	
R^2	0.1372		0.1572		0.1201		0.1599		0.178		0.1699	
Adj. R^2	0.0622		0.0839		0.0436		0.0868		0.1066		0.0978	

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

TABLE 13

Multivariate Analysis of Market Reactions to 20-F Filings-Non-Chinese Firms Sample

$$\Delta AVOL = \alpha_1 + \alpha_2 \times SHORTEN + \alpha_3 \times LoseReconcil + \alpha_4 \times \Delta Accruals + \alpha_5 \times \Delta AuditFee + \alpha_6 \times \Delta Assets + \alpha_7 \times \Delta SpecialItems + \alpha_8 \times \Delta ROA + \alpha_9 \times \Delta Sales + \alpha_{10} \times \Delta Readability + \alpha_{11} \times HomeReport1 + \alpha_{12} \times HomeReport2 + \Sigma\, year + \varepsilon$$

Panel F: Abnormal Trading Volume Change Analysis

Event Window	(0,+2)	(0,+3)	(0,+4)	(-1,+2)	(-1,+3)	(-1,+4)
Intercept	-0.33584	-0.5833	-0.50416	-0.48573	-0.81124	-0.87064
SHORTEN	0.19945	0.178	0.12739	0.30082	0.26718	0.38485
LoseReconcil	1.5247	1.6772	1.54609	1.38499	1.58346	1.26165
ΔAccruals	-8.37249	-7.46593	-8.58038	-9.15353	-9.02063	-8.6611
ΔAuditFee	93.17781	312.1297	354.678	72.50938	320.0837	367.3392
ΔAssets	-3.15055	-2.30979	-1.66371	-2.06567	-1.09693	-0.34877
ΔSpecialItems	3.83012	2.10278	-0.05712	2.9367	0.96958	-1.54867
ΔROA	7.55984	7.49051	8.70522	9.42093	11.61411	11.10617
ΔSales	-0.0899	-0.31719	-0.31283	-0.27548	-0.51067	-0.63859
ΔReadability	-0.26372	-0.28393	-0.29135	-0.29257	-0.32374	-0.31901
HomeReport1	-1.05747	-0.77575	-0.07496	-2.03227	-1.64902	-0.85858
HomeReport2	-0.46235	-0.87668	-0.41802	-1.11651	-1.46333	-1.05492
N	176	176	176	176	176	176
R^2	0.0607	0.0464	0.038	0.0506	0.0476	0.0394
Adj. R^2	-0.0210	-0.036	-0.0457	-0.0319	-0.0352	-0.0441

Notes:
* / ** / *** Significant at 0.10 / 0.05 / 0.01 for a two-tailed *t*-test of means. Variables are defined in the appendix.

A P P E N D I X

Variable Definitions

Variable	Definition
Accrual	Income before extraordinary items minus operating cash flows, scaled by average total assets.
Assets	The log of fiscal year end total assets.
AuditFee	Current year audit fees, scaled by average total assets.
AVOL	The cumulative abnormal trading volumes for the 20-F filing date in a designated test window. Abnormal trading volumes is measured as the difference between actual trading volume and mean trading volume in the window (-49, -5), scaled by the standard deviation of trading volume in the window (-49, -5).
CAR	The absolute cumulative abnormal returns for the 20-F filing date in a designated test window. Abnormal return is measured as the difference between actual return and predicted return calculated from market model OLS regression during the days -260 to -11 estimation period.
HomeReport	1 if the firm has released an annual report in its home country before the firm releases the 20-F, else 0.
HomeReport1	1 if a firm released a home annual report before 20-F release in the previous year but not in the current year, else 0.
HomeReport2	1 if a firm released a home annual report before 20-F release in the current year but not in the previous year, else 0.
Large	1 if a firm has $700 million public float or more, else 0.
Leverage	Debt to asset ratio.
LoseReconcil	1 if a firm stopped disclosing income reconciliation from home GAAP to U.S. GAAP in current year, else 0.
Medium	1 if a firm has less than $700 million but no less than 75 million public float, else 0.
MTB	Market to book ratio.
Readability	FOG index calculated as (words per sentence + percent of complex words) * 0.4.
Reconcil	1 if a firm disclose income reconciliation from home GAAP to U.S. GAAP in the current year, else 0.
ROA	Current year net income scaled by average total assets.
Sales	Current year total revenue.
SHORTEN	1 if a firm shortened its reporting lag by at least 20 days from last year to current year.
Small	1 if a firm has less than 75 million public float, else 0.
SpecialItems	Current year special items, scaled by average total assets.

Note:
For all change (Δ) variables, I take the absolute value of each variable in each firm-year and then compute the difference.

VITA

ZHENFENG LIU

2006-2010	B.S. in Accounting Shanghai International University Shanghai, China
2010-2011	M.S. in Accounting University of Minnesota-Twin Cities Minneapolis, Minnesota
2012-Presnet	Doctoral Candidate in Accounting Florida International University Miami, Florida

PRESENTATIONS

Lin, S. W., and Liu, Z., (2015, August). *"Investors' Responses to Auditor Changes: Evidence from the Use of Chinese Auditors in Hong Kong."* Paper presented at American Accounting Association Annual Conference, Chicago, Illinois.

Liu, Z., (2016, February). *"The Effect of Shortened Reporting Lag on the Usefulness of Form 20-F."* Paper presented at American Accounting Association Mid-year Conference International Accounting Chapter, New Orleans, Louisiana.