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Does the Market Punish the Many for the Sins of the Few? The Contagion Effect of Accounting Restatements for Foreign Firms Listed in the United States

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Abstract: In this paper, we study the contagion effects of accounting restatements issued by foreign firms traded in the U.S. Specifically, we predict and find that accounting restatements that negatively affect the share prices of the restating foreign firms raise investor concerns that non-restating foreign firms from the same home countries have similar accounting issues, and therefore induce a negative stock market reaction to non-restating home country peer firms. We refer to this as a restatement-induced home country contagion effect. On average, non-restating home country peer firms experience a negative stock market return of approximately -0.70% over a three-day window around the restatement announcement. Moreover, we hypothesize and show that the strength of the home market rule of law (ROL) affects investor assessment of the likelihood that peer firms have similar accounting issues and therefore affects the magnitude of the contagion. Specifically, non-restating home country peer firms from countries with weak ROL experience an average stock price decline of approximately -1.32% while peer firms from strong ROL countries experience an average negative return of only -0.26% over the three-day window around the restatement. These results suggest that restatements filed by weak ROL firms are perceived to be more “contagious” than those filed by strong ROL firms.

Key Words: Restatements; Information Transfer; Contagion Effect; Overseas Listings

I. INTRODUCTION

This paper examines the capital market consequences of accounting restatements by foreign firms listed in the U.S. A recent study by Srinivasan, Wahid, and Yu documents a lower restatement frequency for foreign firms than for comparable U.S. firms (Srinivasan, Wahid, and Yu 2015). Moreover, they show that the restatement frequency of firms from strong ROL home countries is highly correlated with the firms' internal control quality, while that of firms from weak ROL home countries is not.¹ In this case, the lower restatement frequency by weak ROL firms indicates opportunistic reporting rather than an absence of accounting issues. Our study builds on the findings in Srinivasan et al. (2015) and examines how differences in the restatement behaviors of foreign firms from different home countries affect the capital market response to these restatements. Specifically, we contend that due to the lax detection of accounting issues and the inferior disclosure of accounting issues, restatements by firms from weak ROL home countries are more likely to be perceived as reflecting systematic accounting issues that are shared by non-restating peer firms.² Therefore, restatements by firms from weak ROL home countries should lead to greater stock market contagion to non-restating peer firms than restatements by firms from strong ROL home countries.

Our study is related to two streams of accounting literature. The first stream examines how news disclosed by one firm affects the share prices of peer firms (contagion effects). While

¹ Conceptually, a country's ROL refers to "the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence in the country" (The World Bank Group 2013, p 1). In the context of financial reporting regulation and monitoring, it refers to the availability and quality of "domestic supply of expert intermediaries such as auditors, analysts, lawyers, and institutional investors", and "the extent of enforcement by local capital market regulators" (Srinivasan et al. 2015, p 1206).

² We use peer firms in this paper to refer to non-restating foreign firms that are from the same home country as the restating firms.

prior studies have documented the contagion effects of major corporate events,³ the majority of these studies focus on information transfers between firms in the same industry. To the extent that firms in the same industry often conduct similar transactions and use similar accounting treatments, one firm's news can trigger investor concerns about reporting quality at the industry level, leading to a contagion effect. Using accounting restatements of foreign firms listed in the U.S. as the research setting, this paper examines the information contagion effect at the home country level as well as how the contagion effect varies across firms from different home countries

The other stream of research focuses on the impact of the strength of home country ROL on the financial reporting incentives and behaviors of foreign firms. The key insight from prior studies is that the strength of home country ROL is associated with firms' financial reporting quality. Moreover, this relation exists even after foreign firms cross list on overseas exchanges with stronger market institutions (Lang, Raedy, and Wilson 2006; Srinivasan et al. 2015). Our study uses restatements filed by foreign firms listed in the U.S. and exploits the variation in the strength of foreign firms' home country ROL to examine potential information transfers at the home country level.

We predict a systematic difference in the magnitude of the contagion effect for restatements issued by firms from different home markets. There are many differences in institutional environments across countries, including enforcement intensity of local regulators and the availability of domestic information intermediaries such as analysts, financial media, and institutional investors. These differences in home country institutions result in U.S.-listed foreign

³ See Foster (1981), Pownall and Waymire (1989), and Freeman and Tse (1992) on earnings releases, Han, Wild, and Ramesh (1989), and Kim, Lacina, and Park (2008) on management earnings forecasts, Lang and Stulz (1992) on bankruptcy announcements, Aharony and Swary (1996) on bank failures, and Gleason, Jenkins, and Johnson (2008) on accounting restatements.

firms behaving differently from U.S. firms. In the case of accounting restatements, Srinivasan et al. (2015) show that a low frequency of restatements generally indicates fewer accounting issues for U.S. firms, but not for U.S.-traded foreign firms. Specifically, they find that in weak ROL countries, firms with accounting issues are less likely to detect or disclose them in restatements. Therefore, when firms from weak ROL countries restate, it signals that non-restating peer firms may have similar accounting issues even when they do not restate their financial statements. In contrast, restatements issued by firms from strong ROL countries are more likely to be perceived as isolated events, and thus lead to smaller contagion effects. This is because U.S. investors generally recognize that foreign firms from strong ROL countries enjoy high-quality financial reporting and have strong compliance with restatement detection and reporting rules. Thus, we predict that accounting restatements filed by firms from strong ROL home countries should be less contagious than those filed by weak ROL firms.

Empirically, we find that when one foreign firm restates its financial statements, non-restating peer firms also experience stock price declines (i.e., there is a restatement-induced home country contagion effect). On average, the magnitude of the contagion is -0.69% in the three-day window around the restatement date. We also identify several firm-level factors that may affect investors' assessment of the likelihood that peer firms have similar accounting issues, including whether the peer firm engages a Big4 auditor and whether it engages the same auditor as the restating firm. We find that these factors affect the magnitude of the contagion effect, supporting our argument that the contagion effect arises from investor concerns that non-restating peer firms have similar accounting issues.

Next, we show that restatements by firms from weak market institutions induce greater negative contagion than do restatements by firms from strong market institutions. Specifically,

we find that non-restating peer firms from countries with weak ROL experience an average stock price decline of approximately -1.32%, while peer firms from strong ROL countries experience an average negative return of only -0.26% over the three-day restatement window. The difference is both statistically and economically significant. Subsequent regression analyses confirm the inferences made from univariate tests. We find that home country ROL has incremental explanatory power (relative to firm-level factors) for contagion returns. Additional analyses reveal that the effect of home country ROL on contagion returns is robust to the inclusion of changes in peer firms' fundamentals. Finally, we repeat our analyses using a subsample that excludes restatements by Chinese and Canadian firms to ensure that our main results are not driven by restatements from specific countries and find that our inferences are unchanged.

Our study contributes to the accounting literature in several ways. First, we extend existing research on information transfer effects of accounting-related events by exploring another dimension on which information transfer can occur. Although firms that operate in the same industry or along the supply chain are closely connected (Pandit, Wasley, and Zach 2011), we show that foreign firms traded in the U.S. are related at the home country level. Our findings also suggest that the mechanism of the contagion is investor concerns that non-restating peer firms have accounting issues that are similar to those of the restating firms.

Second, this study furthers our understanding of how the institutional environment affects the valuation of foreign firms. While prior studies primarily focus on incentives and behaviors of foreign firms that are shaped by their home market institutions, our study considers the effects of institutions on U.S. investor perceptions of foreign firms. Given the large number of cross-listed firms, U.S. investors have numerous opportunities to invest in foreign firms. Therefore, research

that investigates how U.S. investors value foreign firms should be of interest. Our results suggest that U.S. investors tend to perceive restatements issued by firms from weak ROL home countries as more “contagious” than those issued by firms from strong ROL home countries, indicating that the quality of home market institutions is an important factor for U.S. investors when evaluating foreign firms.

The remainder of the paper is organized as follows. In Section II, we review prior literature and develop our hypotheses. Section III describes the data and the sample selection procedure, Section IV details the empirical design and results, and Section V concludes.

II. PRIOR LITERATURE AND DEVELOPMENT OF HYPOTHESES

2.1 Accounting restatements of U.S. firms and industry contagion effects

Under U.S. Generally Accepted Accounting Principles (GAAP) and U.S. Securities and Exchange Commission (SEC) requirements, managers have the obligation to correct any errors in prior-period financial statements if the statements “are later discovered to have been false and misleading from the outset, and the issuer knows or should know that persons are continuing to rely on all or any material portion of the statements” (Skinner 1997, p 252).⁴ By restating its accounting numbers, the firm admits to misrepresentations in its previous reports and corrects these misrepresentations.

⁴ According to Statement of Financial Accounting Standards No. 154, “any error in the financial statements of a prior period discovered subsequent to their issuance shall be reported as a prior-period adjustment by restating the prior-period financial statement. When financial statements are restated to correct an error, the entity shall disclose that its previously issued financial statements have been restated, along with a description of the nature of the error” (Financial Accounting Standards Board 2005, p 10-11).

Given that accounting restatements reveal errors in a firm's past financial reports, restatements may raise investor concerns about the integrity and competence of firm management. This may further lead to a downward adjustment of investor beliefs about the credibility of the restating firm's financial reports and an increase in the restating firm's information risk (Kravet and Shevlin 2010). Therefore, it is not surprising that prior research generally finds a negative market reaction following the announcement of restatements by U.S. firms. For example, Palmrose, Richardson, and Scholz (2004) document an average abnormal return of approximately -9% in a two-day announcement window.

More interestingly, the release of an accounting restatement also induces a decrease in the share prices of non-restating firms in the same industry (Gleason et al. 2008). This is known as the intra-industry information transfer effect or "the contagion effect" of accounting restatements. Given that firms in the same industry are more likely to "engage in similar business transactions, face similar industry prospects, and use similar accounting practices" (Gleason et al. 2008, p. 87), one firm's restatement may call into question the content and credibility of financial reporting at the industry level.

2.2 Accounting restatements of U.S.-listed foreign firms and the home country contagion effect

Similar to U.S.-domiciled firms, foreign firms listed on U.S. exchanges are *de jure* subject to the same SEC requirement to correct inaccurate, incomplete, or misleading information disclosed in previous filings. Although foreign firms restate less frequently than comparable U.S. firms, a substantial number of restatements are still filed by foreign issuers (Srinivasan et al. 2015). Furthermore, U.S. firms and foreign firms, especially those from

countries with weak market institutions, have different levels of compliance with restatement detection and reporting rules.

The notion that home market institutions affect the financial reporting of foreign firms listed in the U.S. is supported by prior research. For example, Lang et al. (2006) compare U.S. firms' earnings with reconciled earnings of cross-listed non-U.S. firms, and document that cross-listed firms exhibit more earnings smoothing and earnings management towards a target, less timely loss recognition, and a lower association between earnings and share prices than matched U.S. firms. In addition, foreign firms from countries with weaker investor protection are more likely to manage earnings. Consistent with Lang et al. (2006) and related to our study, Srinivasan et al. (2015) document a lower restatement frequency for foreign firms than for a matched sample of U.S. firms. They attribute this difference to home country institutional characteristics summarized by the ROL index. To the extent that the financial reporting practices of foreign firms are shaped by their home country institutions, and therefore is similar at the home country level (Leuz, Nanda, and Wysocki 2003), a foreign firm's restatement is more likely to cause investors to reassess the quality of financial reports of all firms from that same home country. Therefore, we predict a restatement-induced contagion effect at the home country level. Our first alternative hypothesis is:

H1: For foreign firms listed in the U.S., an accounting restatement will be accompanied by a decrease in the stock prices of non-restating peer firms from the same home country.

Next, we explore the relation between home country institutions and the magnitude of home country contagion effects. While prior studies generally use restatement frequency to proxy for poor accounting quality, Srinivasan et al. (2015) show that low restatement frequency could indicate a lack of detection and poor disclosure of accounting issues. Specifically,

Srinivasan et al. (2015) outline the two steps leading to a restatement. First, the firm makes an error or irregularity in its financial statements either unintentionally or purposefully. Second, the firm detects, corrects, and discloses the accounting issue in later periods by restating the accounting numbers. Therefore, a low restatement frequency can be due to either high accounting quality (few issues in step one) or detection and disclosure of accounting issues (low corrections in step two).

Srinivasan et al. (2015) find that foreign firms listed in the U.S. have a lower frequency of restatements than comparable U.S. firms. They find a positive association between restatements and internal control material weaknesses for U.S. firms and foreign firms from strong ROL countries but not for foreign firms from weak ROL countries. This suggests that the low frequency of restatement for these latter firms is the result of low-quality detection and disclosure, rather than an absence of accounting misstatements.

Based on the findings in Srinivasan et al. (2015), we examine how investors react to restatements issued by firms from strong versus weak ROL countries. Because firms from weak ROL countries are more likely than firms from strong ROL countries to fail to detect and disclose accounting issues, when firms from weak ROL countries restate, investors are more likely to believe that non-restating peer firms have similar accounting issues but did not restate their own financial statements due to poor detection and reporting of accounting problems. In contrast, when firms from strong ROL countries restate, investors should be less concerned about the financial reporting quality of non-restating peer firms because these firms would likely have issued their own restatements if they had similar accounting issues.

Consider an average investor's reaction upon observing accounting restatements made by firms from two countries (A and B) both listed in the U.S. Although restatements convey negative information for both restating firms, their effects on investor perception about non-restating firms from Country A and Country B could be very different. Given a relatively high ROL rating in Country A, investors should generally recognize that Country A's institutions offer high-quality monitoring over corporate financial reporting. Therefore, one restatement issued by a firm from Country A is likely to be interpreted as reflecting accounting issues within the restating firm itself, and the information generalized from this restatement to non-restating firms in Country A should be relatively limited. However, in the case of a restating firm from a weak ROL country (Country B), investors are more likely to be concerned that the restated issues are common across non-restating firms from Country B. As a result, the magnitude of country-level contagion should be greater for firms from countries with a weaker ROL. We summarize the above argument in the following alternative hypothesis:

H2: The restatement-induced home country contagion effect is greater for firms from weak ROL countries than for firms from strong ROL countries.

III. SAMPLE AND DESCRIPTIVE STATISTICS

We obtain our sample of accounting restatements from Audit Analytics. Table 1 details the sample selection procedure. Our initial sample includes all restatements issued by foreign firms listed on major U.S. exchanges (i.e., NYSE, NASDAQ, and AMEX) from January 2003 through June 2013 but excluding 2008.^{5,6} We include American Depository Receipts (ADRs)

⁵ Following Srinivasan et al. (2015), we identify foreign firms by their location of their headquarters. Specifically, we use the variable LOC in Compustat and classify firms with non-U.S. headquarters as foreign firms.

⁶ We start our sample period in 2003 because the number of restatements in Audit Analytics is relatively small before 2003. We exclude restatements disclosed in 2008 because of abnormal stock pricing during the financial crisis.

and foreign direct listings, and exclude OTC-traded firms and private placement issuers. There are 433 restatements in our initial sample. After excluding restatements with missing financial and stock market data, 256 restatements remain in the sample. We further exclude 42 events where restatement dates are within +/- three days around the quarterly earnings release dates.⁷ This step ensures that restatement announcement returns are not induced by market reactions to quarterly earnings surprises. Finally, we exclude restatements where the three-day cumulative abnormal returns are greater than -0.1%.⁸ Our final sample includes 105 restatements that adversely affect the shareholders' equity of the restating firm.⁹

Table 2 describes the distribution of restatements by home country in the final sample. Following La Porta, Lopez-de-Silanes, and Shleifer (2006), we use the ROL index created by the World Bank as the empirical measure for the strength of home market ROL and classify foreign firms into strong and weak ROL firms using the country sample median of the ROL index (=1.24). Of the 105 restatements, 44 (61) are issued by firms in weak (strong) ROL countries, representing 42% (58%) of the sample.

Figures 1 and 2 plot the frequency of restatements by calendar year. In Figure 1, the number of restatements steadily increases after 2003, and reaches its peak in 2005. This trend seems to suggest that the implementation of the Sarbanes-Oxley Act of 2002 played a role in the

⁷ Specifically, we use the variable RDQ in Compustat to identify earnings release dates.

⁸ Our inferences remain unchanged if we use -1% as the cutoff point. We chose -0.1% to include more restatements in our sample.

⁹ It may seem surprising that there are many restatements where the announcement returns are positive or only slightly negative but Gleason et al. (2008) report a similar finding. Thus, they delete 159 observations from their initial sample of 919 restatements because the restatement announcement returns are greater than -1.0%. Following Gleason et al. (2008), we investigate the 25 cases with the largest three-day market-adjusted cumulative abnormal returns in order to identify potential causes for the large positive announcement returns. In 11 cases, accounting errors in quarterly earnings (but not annual earnings) were quickly disclosed and corrected, in 10 cases, the restatements result in either no changes or in increases in prior-period earnings/shareholders' equity, and the remaining 4 cases involve re-audits or accounting investigations that are voluntarily initiated by the firms and the results of the investigations were not known at the time of the disclosure.

growing number of restatements after 2003. The peak at 2005 may be due to a policy change from the SEC that required all U.S. publicly traded firms to issue Form 8-K Item 4.02 when the restatement renders a company's overall financial reports unreliable (Center for Audit Quality, 2014). Figure 2 presents the frequency of restatements by home country ROL. In the earlier part of the sample period (2003-2009), strong ROL firms issue more restatements than their weak ROL counterparts. Since 2009, however, restatements made by weak ROL firms increase and surpass those made by strong ROL firms.

Table 3 presents restatement characteristics for our sample. The average restatement period is approximately 26 months, and it is not significantly different between weak and strong ROL firms. We create an indicator variable, *Stealth_Disclosure*, which is equal to one if restatements are reported in regularly scheduled financial statements or in amendments of regularly scheduled financial statements without a separate filing or press release, and zero otherwise. Table 3, Panel A shows that approximately 50% of all restatements are stealth, and this percentage does not differ significantly for firms in strong versus weak ROL countries. Panel B presents the variety of disclosure methods used. Most restatements are disclosed in 8-Ks and in 20-Fs.

Panel C summarizes the restatement-related accounting issues in our sample. Almost all restatements in our sample (93%) are associated with accounting rule application failures. A small portion (3%) involve accounting and clerical errors, and a fair number (16%) are related to other significant issues such as material internal control weakness.^{10, 11} The relation between

¹⁰ Note that the sum of the four categories (i.e., *Accounting rule application failures*, *Financial fraud, irregularities and misrepresentations*, *Errors - accounting and clerical applications*, and *Other significant issues*) does not equal one. This is because the four categories are not mutually exclusive. For example, a restatement can involve both accounting rule application failures and other significant issues.

restatements and other legal events is summarized by the last two variables in Panel C. Overall, 25% of sample restatements involve private litigation, and 11% identify investigations by the SEC.

IV. EMPIRICAL RESULTS

4.1 Non-restating home country peer firms

We use the LOC variable in Compustat to identify non-restating home country peer firms by their place of headquarters. We define non-restating home country peer firms as firms that share the same LOC with the restating firm, but have not restated within the preceding two weeks (14 days) relative to the restating firm's restatement date. We truncate market-adjusted returns of non-restating peer firms at $\pm 1\%$ to reduce the influence of extreme values. The final sample of non-restating home country peer firms is comprised of 8,651 observations.

4.2 Home country contagion effects

4.2.1 Univariate analyses – t-tests

Following Gleason et al. (2008), we use cumulative abnormal returns (CARs) around restatement announcement dates to test H1. Table 4 presents the stock returns of restating firms and their non-restating home country peer firms around the restatement announcement dates. We measure market returns as the daily return of the Standard and Poor's (S&P) 500 Index.¹² Panel A shows that restating firms experience significantly negative announcement returns: the average

¹¹ We do not have any restatements that are classified as *Financial fraud, irregularities, and misrepresentations* by Audit Analytics in our sample. This might be because of the algorithm that Audit Analytics uses to code this variable.

¹² Specifically, we first calculate the buy-and-hold returns of the sample firms and the respective buy-and-hold returns of the S&P Index. We then subtract the latter from the former to obtain the cumulative market-adjusted return.

three-day CAR for restating firms is approximately -6.5%.¹³ Interestingly, non-restating home country peer firms also experience significantly negative abnormal returns (-0.69%) during the three-day event period [-1, +1], providing support for the host country contagion effect proposed in H1.¹⁴

We present post announcement returns for restating and non-restating home country peer firms in Panel B. Although restating firms do not experience statistically significant returns in the post-announcement period, the average CAR for non-restating home country peer firms over the [+2, +35] window is -1.30% (p-value<0.01). This is consistent with some degree of post-announcement drift, which may be driven by the time it takes for investors to collect and evaluate information contained in restatements. Returns in the [-1, 0] window confirm the pattern of results in the [-1, +1] window.

4.2.2 Multivariate regression analyses

We posit that the home country contagion effect proposed in H1 arises from investor concerns that home country peer firms have similar accounting issues as the restating firms. In this section, we examine the relation between contagion returns and several peer firm-level

¹³ Note that this three-day CAR is negative by construction because we restrict our sample to only restatements with three-day CARs less than -0.1%.

¹⁴ We also examine whether investors pool all cross-listed foreign firms together such that one foreign firm's restatement triggers a contagion effect for all foreign firms, regardless of their home countries. Specifically, we calculate the three-day CARs of all foreign firms around the announcement dates for the 105 restatements in our sample, and find that there is a statistically significant negative mean return of -0.29% (p-value<0.01), with a median of -0.29%. We then separate the sample of foreign firms based on whether the peer firms and the restating firms are from the same home countries. For peer firms that are from the same home country, the mean contagion return is -0.69% (p-value<0.01, Table 4, Panel A). For peer firms that are not from the same host countries, the mean contagion return is -0.23% (p-value<0.01). A two-sample t-test shows that the two mean returns (-0.69% vs. -0.23%) are statistically different (p-value<0.01). Therefore, we conclude that a contagion effect for all foreign firms does exist but the magnitude of this contagion is smaller than the magnitude of the contagion for peer same-country firms.

factors that relate to the perceived likelihood that peer firms have similar accounting issues. Our model is specified as follows:

$$CAR = \beta_0 + \beta_1 Factors + Non\text{-}restating\ peer\ firm_Controls + Restatement_Controls + \varepsilon \quad (1)$$

The dependent variable is non-restating home country peer firms' three-day CARs, and the variable of interest is *Factors*, which represents peer firm-level factors that should assist investors in assessing the likelihood that peer firms have similar accounting problems.

Specifically, we identify the following four factors: (1) whether the peer firm employs a Big4 auditor (*Big_Four*), (2) whether the restating firm and the peer firm have the same auditor (*SameAuditor*), (3) whether the restating firm and the peer firm are in the same industry (*SameIndustry*), and (4) the earnings quality of the peer firm (*EM_Rank*).

Table 5, Panels A and B report descriptive statistics and the correlation matrix for the variables used in our regressions, respectively. The correlation matrix in Panel B shows that *CAR* is negatively correlated with *SameAuditor*, *SameIndustry*, and *EM_Rank*, and positively correlated with *Big_Four*. These correlations suggest that investors consider these four factors when assessing the likelihood that peer firms share similar accounting issues as the restating firms.

Table 6 presents results from estimating equation (1). In model 1, the coefficient on *Big_Four* is positive and significant, which suggests when the non-restating peer firm employs one of the Big4 audit firms, it suffers less from the negative contagion. Given that investors are generally more confident about the audit quality of Big4 firms, this suggests that having a high-quality auditor can attenuate the negative contagion that non-restating home country peer firms experience. In model 2, the coefficient on *SameAuditor* is negative and significant, which suggests that when a non-restating peer firm hires the same auditor as the restating firm, the

contagion effect is more negative, presumably because restatements raise investor concerns about the audit quality provided by the restating firms' auditors, and these concerns transfer to other home country peer firms that engage the same auditor. In model 3, the coefficient on *SameIndustry* is negative and significant. This is consistent with the industry contagion effects of accounting restatements documented in Gleason et al. (2008); firms in the same industry conduct similar business transactions and use similar accounting practices, and are therefore more likely to have similar accounting issues. In model 4, the coefficient on *EM_Rank* is negative and significant, indicating more negative contagion for peer firms with lower earnings quality. In model 5, we include all four factors in the model. *Big_Four*, *SameIndustry*, and *EM_Rank* remain significant with the predicted signs, while *SameAuditor* is negative but insignificant (possibly due to its correlation with other variables).

We also include various peer firm and restatement characteristics as control variables. The non-restating peer firm control variables are *Size* and *ROA*, which control for the size and performance of the peer firm. The restatement control variables include *Restating_3CAR*, *Restating_Size*, *Stealth_Disclosure*, *SEC_Investigation*, and *Duration_Year*. *Restating_3CAR* is the three-day CAR for restating firms. It controls for the magnitude of the effect of the restatement for the restating firm itself; more negative values suggest that investors perceive the restatement to be more consequential and such restatements should induce greater peer firm contagion. *Restating_Size* is the natural log of total assets for restating firms. Larger restating firms may generate greater contagion effects since their restatements are likely to be more influential. *Stealth_Disclosure* is an indicator variable equal to one if the restatements are reported in regularly scheduled financial statements or in amendments to regularly scheduled financial statements without a separate filing or press release, and zero otherwise.

SEC_Investigation is an indicator variable equal to one if the restatement involves an SEC investigation, and zero otherwise.¹⁵ *Duration_Year* is the length of the restatement period in years.

Overall, the cross-sectional tests presented in Table 6 reveal that peer firms' auditors, industries, and earnings quality affect investor assessment of the likelihood that the accounting issues disclosed by the restating firms are shared by peer firms, and therefore affect peer firms' contagion returns.

4.3 Home country contagion effects and the strength of home market institutions

In previous sections, we document the existence of the home country restatement-induced contagion effect proposed in H1. In this section, we examine H2 which predicts more negative contagion for restatements issued by firms from weak ROL countries than for restatements issued by firms from strong ROL countries. We perform two sets of tests related to H2: two-sample t-tests and regression analyses.

4.3.1 Univariate analyses – two-sample t-tests

In Table 7, we first partition all home countries in our sample into weak ROL and strong ROL countries based on the sample median of ROL index (=1.24). We then report the stock

¹⁵ Our rationale for including *SEC_Investigation* in the regression is that cases that involve SEC investigations may be more serious and attract more investor attention, and therefore may lead to more negative contagion. However, we find that in most of our regression specifications, *SEC_Investigation* is insignificant. To investigate this issue, we obtain *SEC_Investigation* from Audit Analytics, where this variable “indicates that the restatement disclosure identified SEC investigation of the registrant.” We investigate cases in our sample where *SEC_Investigation* is coded as “YES” in Audit Analytics and find that in most cases, the restatements are a response to SEC reviews and comments on periodic filings, and firms decide to follow SEC’s suggestions in restating its financial restatements. Most of the communications between the SEC and the firms are in the form of informal inquiries, and official investigations are very rare. Therefore, we believe that when *SEC_Investigation* equals one, violations are not necessarily more serious. In fact, this may signal that the firms are complying with SEC’s guidance and correcting their mistakes.

return behavior of restating and non-restating home country peer firms separately for weak ROL and strong ROL firms, and perform two-sample t-tests for the mean CARs. Panel A reveals that the three-day [-1, +1] CARs for non-restating home country peer firms are significantly different for firms from different home market institutions. For restatements issued by firms from strong ROL countries, an average non-restating peer firm experiences a negative stock return of -0.26% (p-value<0.01). However, when restatements are issued by firms from weak ROL countries, the contagion effect is approximately -1.32% (p-value<0.01). The difference is statistically and economically significant. CARs in the [-1, 0] window follow the same pattern: restatements induce a greater contagion among firms from weak ROL countries. Overall, these two-sample t-test results are consistent with H2.

In Panel B, we examine the three-day CARs of non-restating peer firms in post-restatement periods, i.e., [+2, +25] and [+2, +35]. We do not find evidence of significant return reversals. This suggests that the contagion effect reflects a loss of confidence in peer firms' financial reporting quality, rather than short-term uncertainty.

In Panel C, we explore the interplay between contagion returns and the seriousness of restatements. Specifically, we use the magnitude of the three-day restatement returns to proxy for the seriousness of restatements and split the restatement sample using the median restatement return. Results reveal that there is a significant contagion for firms from strong weak ROL countries when restatements are more serious (i.e., when restatement returns are below median). However, when restatements are less serious, contagion exists only for firms in weak ROL countries. For the subsample of less serious restatements, the mean contagion return for firms in strong ROL countries is -0.05% and is statistically insignificant. Overall, these results suggest that firms' home country institutions affect the extent to which investors

differentiate between the magnitudes of respective restatements when determining contagion returns for peer firms.

4.3.2 Multivariate regression analyses

We also perform regression analyses to assess the effect of home country ROL on contagion returns after controlling for various factors that may also explain the magnitude of the contagion. Our regression model is specified as follows:

$$CAR = \beta_0 + \beta_1 ROL + \beta_{2-5} Factors + Non\text{-}restating\ peer\ firm_Controls + Restatement_Controls + \varepsilon \quad (2)$$

The dependent variable is the three-day CAR for non-restating home country peer firms around restatement announcements. The coefficient of interest is β_1 , which captures the marginal effect of home country ROL on the magnitude of the contagion effect (controlling for other variables). *Factors* are *Big_Four*, *SameAuditor*, *SameIndustry*, and *EM_Rank*, as defined in Table 6. All peer firm and restatement control variables in equation (1) are included in equation (2).

The correlation matrix in Table 5, Panel B reveals a significant positive correlation between *CAR* and *ROL*, indicating that peer firms from strong ROL countries experience less negative stock returns due to restatements. This is consistent with H2. Table 8 presents results from estimating equation (2). The first model includes a basic set of control variables while the second model incorporates the four peer firm-level factors included in Table 6. The coefficient estimates for *ROL* are positive and significant in both models, indicating more negative

contagion for firms from weak ROL countries.¹⁶ In terms of economic magnitude, the coefficients suggest that, other things equal, restatements issued by an average Brazilian firm (ROL=-0.49) induce a contagion that is approximately 0.60% more negative than those by an average U.K. firm (ROL=1.55) over a three-day window. Given that the average contagion return for firms from all foreign countries is -0.69%, this difference is economically significant. The coefficient estimates for *Big_Four*, *SameAuditor*, *SameIndustry*, and *EM_Rank* are consistent with the results in Table 6.¹⁷ Overall, regression results presented in Table 8 provide support for H2.

4.4 Additional analyses

4.4.1 Subsample excluding restatements issued by Chinese and Canadian firms

Firms from China and Canada contribute the largest numbers of observations to our final restatement sample (20% and 23% respectively). To ensure that the contagion effect is not driven by restatements from these two countries, we create a subsample that excludes restatements by Chinese and Canadian firms, and reestimate the regressions in Table 8.¹⁸ Table 9 reports the

¹⁶ We also assess the incremental explanatory power of our main variable of interest, *ROL*, by comparing the R-squared statistics for model 5 in Table 6 and model 2 in Table 8. The incremental R squared is 0.0016, and an incremental F-test shows that this increase in R squared is statistically significant ($F_{(1, 6709)}=11.18$, p-value<0.01). Thus, adding *ROL* significantly increases the explanatory power of the model.

¹⁷ However, we caution readers about the coefficient on *Big_Four* in Table 8. Although the coefficient is positive and significant, it is not significant after excluding restatements by Canadian and Chinese firms (Table 9). This might be due to the low power of tests with fewer observations in Table 9, or it could suggest that the effect of auditor choice on contagion returns is more pronounced for Canadian and Chinese firms.

¹⁸ We also repeat tests for H1 (Table 4) with the subsample that excludes Chinese and Canadian firms' restatements. We perform a two-tailed t-test on the mean of *CAR* for this subsample. The mean is -0.20% and the p-value is 0.073. We also compare the means of *CAR* for two subsamples: (1) the subsample that excludes restatements issued by Chinese and Canadian firms, and (2) the subsample of restatements issued by Chinese and Canadian firms. The mean *CAR* of the second subsample is -0.68% and is significantly more negative than the mean of the first sample (-0.68% vs. -0.20%, p-value<0.01). This suggests that the contagion effect is more pronounced in the Canadian and Chinese subsample.

results of this subsample test. In both models, the coefficient estimates on *ROL* remain positive and significant, confirming inferences on *ROL* from the full sample.

4.4.2 Changes in home country peer firms' fundamentals

There are several potential explanations for the restatement-induced home country contagion effect that we document in this paper. The first, which is the focus of our study, emphasizes investors' reassessments of the financial reporting quality of home country peer firms. The second argues that the contagion is mainly due to investor concerns about the future performance of home country peer firms since earnings of firms from the same home countries tend to co-move. In Table 10, model 1, we add ΔROA to equation (2) to explore this second explanation. ΔROA is the change in ROAs of peer firms one year after the restatement. If the restatement contagion is driven by concerns about peer firms' future performance, then we should expect more negative contagion returns for firms with larger reductions in operating performance, (i.e., a positive coefficient on ΔROA). Instead, we find that the coefficient estimate for ΔROA is negative and insignificant. Therefore, it appears that the contagion effect is not primarily driven by investors' pessimistic expectations about peer firms' future performance.

Another potential explanation for the home country contagion effect is investor concerns about changes in home country peer firms' investment subsequent to restating firms' restatements. Durnev and Mangen (2008) show that firms obtain new information about the values of their investment projects from industry competitors' restatements, and change their subsequent investment decisions based on this new information. Thus, we add $\Delta Investment$ to equation (2) to explore this alternative explanation. Following Durnev and Mangen (2008), we define $\Delta Investment$ as the change in the investments of peer firms after the restatement. Results

in model 2 reveal that $\Delta Investment$ is significant at the 10% level, consistent with the findings in Durnev and Mangen (2008). Moreover, our main variable ROL remains positive and significant after including $\Delta Investment$, supporting our hypothesis that firms from weak ROL countries experience more negative contagion effects than firms from strong ROL countries, presumably because of their lax compliance with restatement detection and reporting.

4.4.3 Subsequent restatements

Gleason et al. (2008) investigate whether investors can partially predict later restatements in the same industry by testing whether the contagion effect is more negative for firms that later restate compared to firms that do not restate. We test investor anticipation of subsequent restatements by comparing the contagion returns of home country peer firms that later restate with those that do not restate. Specifically, we define *RestateLater* as an indicator variable equal to one if the peer firms issue their own restatements within various windows after the initial restatements of the restating firms, and equal to zero otherwise.¹⁹ We reestimate equation (2) with *RestateLater* in Table 11. The coefficients on *RestateLater* are insignificant in all models, and therefore do not support the partial anticipation hypothesis. Consistent with Gleason et al. (2008), our results show that investors do not seem to partially anticipate future restatements because restatements are difficult to predict.

4.4.4 Fixed effects for disclosure methods

In order to further control for the effect of different disclosure venues on contagion returns, we repeat our main analyses in Tables 6 and 8 with fixed effects for different disclosure

¹⁹ Specifically, in Table 11, we construct four windows (15 days, 40 days, 120 days, and 365 days) to detect later restatements by peer firms.

methods.²⁰ Table 12 reports the results from estimating equations (1) and (2) with disclosure venue fixed effects. Our inferences remain unchanged.

4.4.5 Contagion effects by calendar year

Finally, in order to assess whether unobservable year fixed effects affect our results, in Figure 3, we plot the median three-day [-1, +1] CARs of non-restating peer firms by disclosure year separately for restatements made by firms in strong versus weak ROL countries. In six of the nine years in our sample period, the contagion effect is more negative for restatements made by firms in weak ROL countries, suggesting that the regression results are not driven by unobservable time factors.

V. CONCLUSION

Our study examines whether accounting restatements issued by foreign firms cause market participants to adjust their perceptions about the quality of financial statements of non-restating home country peer firms, and therefore lead to a negative contagion effect. Accounting restatements generally induce negative market reactions for restating firms because they reveal inappropriate accounting practices that may be unfavorable to shareholder wealth in the long run. Moreover, new information disclosed in restatements may generalize to non-restating firms that share common accounting features with the restating firms. Our study investigates such information spillover and focuses on restatements issued by foreign firms that are listed in the U.S. because these firms' accounting practices are interconnected at the home country level.

²⁰ We exclude *Stealth_Disclosure* in regressions with disclosure venue fixed effects in Table 12 to reduce multicollinearity.

We contend that accounting restatements issued by restating foreign firms induce market participants to reevaluate their beliefs about the financial reporting quality of other firms from the same home countries. If investors act on such revised beliefs, then we should observe a negative market reaction for non-restating home country peer firms. Therefore, we predict the existence of a restatement-induced home country contagion effect. Our empirical tests show that, on average, non-restating home country peer firms experience a stock price decline of -0.69%, supporting our prediction.

We follow up with a cross-country prediction on the magnitude of the contagion effect. Specifically, we hypothesize and show that the contagion effect is stronger for firms from weak ROL home countries compared to firms from strong ROL home countries. We find that, consistent with our hypothesis, non-restating firms from countries with a weak ROL experience an average stock price decline of approximately -1.32% while peer firms from strong ROL countries experience an average return of only -0.26% over a three-day announcement window. In regression analyses, we confirm that the effect of home country ROL on contagion returns remains significant after controlling for firm-level factors that also affect investor assessments of the likelihood that peer firms have similar accounting issues. Overall, our results suggest that U.S. investors consider the quality of home market institutions of foreign firms when evaluating information disclosed in accounting restatements. Restatements filed by firms in weak ROL countries are more “contagious” than those issued by firms in strong ROL countries.

Our study extends prior studies on information transfer of accounting events by documenting that home country is another dimension by which foreign firms traded in the U.S. are connected and information is transferred. Moreover, these results further our understanding of the capital market consequences of foreign firms’ weak compliance with restatement detection

and disclosure rules. This is informative for foreign firms that cross list in the U.S. for better access to financing opportunities and more accurate securities valuation.

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Appendix A: Variable definitions

Variable	Description	Source
<i>ROL</i>	Country level ROL index from Worldwide Governance Indicators (WGI) created by the World Bank. The ROL index "reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence" (The World Bank Group2013). We use the ROL index for year 2005.	WGI Dataset online
<i>Duration</i>	The length of the restating period in months.	Audit Analytics
<i>Duration_Year</i>	The length of the restating period in years.	
<i>Stealth_Disclosure</i>	An indicator variable equal to one if restatements are reported in regularly scheduled financial statements or in amendments to regularly scheduled financial statements without a separate filing or press release, and zero otherwise.	
<i>Accounting rule application failures</i>	An indicator variable equal to one if restatements involve accounting rule application failures, and zero otherwise.	
<i>Financial fraud, irregularities, and misrepresentations</i>	An indicator variable equal to one if restatements involve financial fraud, irregularities, and misrepresentations, and zero otherwise.	
<i>Errors - accounting and clerical applications</i>	An indicator variable equal to one if restatements involve material accounting and clerical application errors, and zero otherwise.	
<i>Other significant issues</i>	An indicator variable equal to one if restatements involve other significant issues, such as internal control weaknesses, and zero otherwise.	
<i>Litigation</i>	An indicator variable equal to one if restatements involve securities class action lawsuits, and zero otherwise.	
<i>SEC_Investigation</i>	An indicator variable equal to one if restatement disclosures identify SEC investigations of the registrants, and zero otherwise.	Compustat-CRSP Merged Database
<i>CAR</i>	The three-day [-1, +1] cumulative market-adjusted abnormal return of the non-restating home country peer firms. Market return is measured by the daily return of the S&P Index.	
<i>Size</i>	The natural log of total assets of non-restating home country peer firms.	
<i>ROA</i>	Net income before extraordinary items scaled by total assets of non-restating home country peer firms.	
<i>EM_Rank</i>	For each non-restating home country peer firm, we compute the ratio of the absolute value of accruals to the absolute value of net operating cash flows for two years prior to the restatement year and for the restatement disclosure year. We then compute the average of the three ratios and rank them. Finally, we rescale the ranks to be between zero and one.	
<i>Restating_3CAR</i>	The three-day [-1, +1] cumulative market-adjusted abnormal return of the restating firms.	
<i>Restating_Size</i>	The natural log of total assets of restating firms.	
<i>SameIndustry</i>	An indicator variable equal to one if the pair of restating and non-restating peer firm are in the same industry (4-digit SIC code), and zero otherwise.	
<i>Big_Four</i>	An indicator variable equal to one if the non-restating home country peer firm is audited by one of the big 4 accounting firms, and zero otherwise.	
<i>SameAuditor</i>	An indicator variable equal to one if the pair of restating and non-restating peer firm use the same auditor, and zero otherwise.	

Appendix B: Descriptions of SEC filings in Table 3 Panel B

SEC filing name	Description
<i>10-K, 10-K/A</i>	Annual report pursuant to Section 13 and 15(d)
<i>10-Q/A</i>	Amendments to quarterly report pursuant to Section 13 or 15(d)
<i>20-F, 20-F/A</i>	Annual and transition report of foreign private issuers pursuant to Section 13 or 15(d). It is the form generally used by foreign private issuers that wish to register their securities under Section 12(b) of the Exchange Act and list on a national securities exchange
<i>40-F, 40-F/A</i>	Annual reports filed by certain Canadian issuers pursuant to Section 15(d) and Rule 15d-4
<i>6-K</i>	Current report of foreign issuer pursuant to Rules 13a-16 and 15d-16 Amendments
<i>8-K, 8-K/A</i>	Current report filing that announces major events that shareholders should know about
<i>ARS</i>	Annual report to security holders
<i>F-4/A</i>	Registration statement for securities issued by foreign private issuers in certain business combination transactions
<i>NT 10-K</i>	Notice under Rule 12b25 of inability to timely file all or part of a form 10-K, 10-KSB, or 10-KT
<i>NT 20-F/A</i>	Amendment to notice under Rule 12b25 of inability to timely file all or part of an annual report of Form 20-F

Source: Descriptions of SEC Form available at SEC's official website
<http://www.sec.gov/edgar.shtml#.VBsxZPldW0a>.

Figure 1: Frequency of restatements by disclosure year

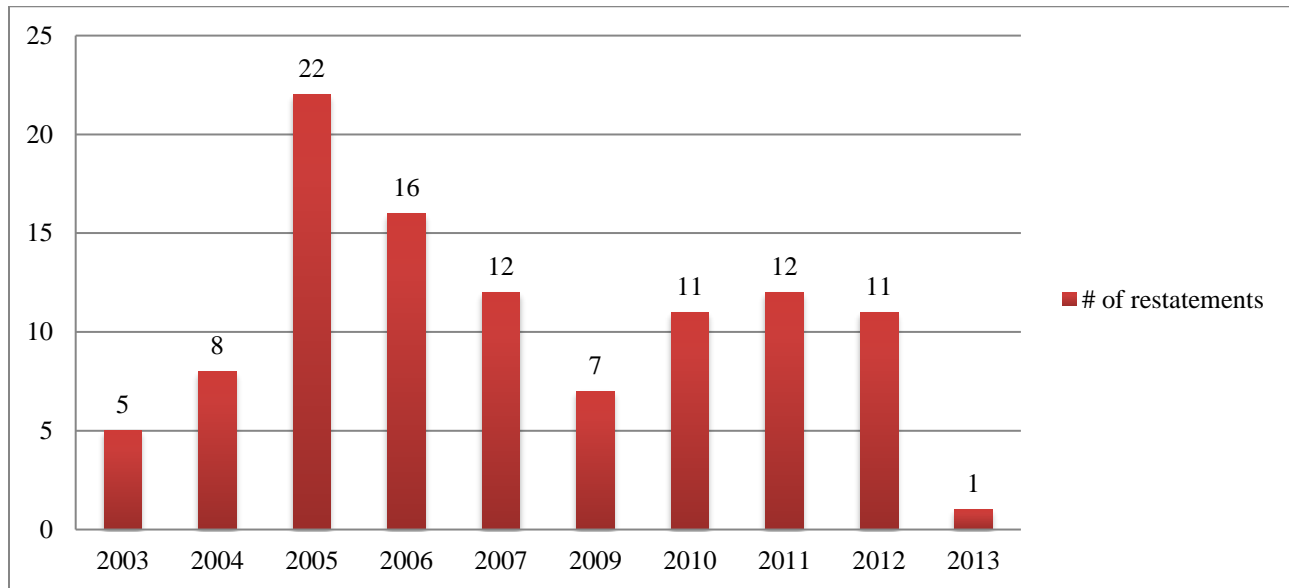


Figure 1 plots the frequency of all restatements in the final restatement sample by the calendar year of the disclosure date.

Figure 2: Frequency of restatements by disclosure year and the strength of home country ROL

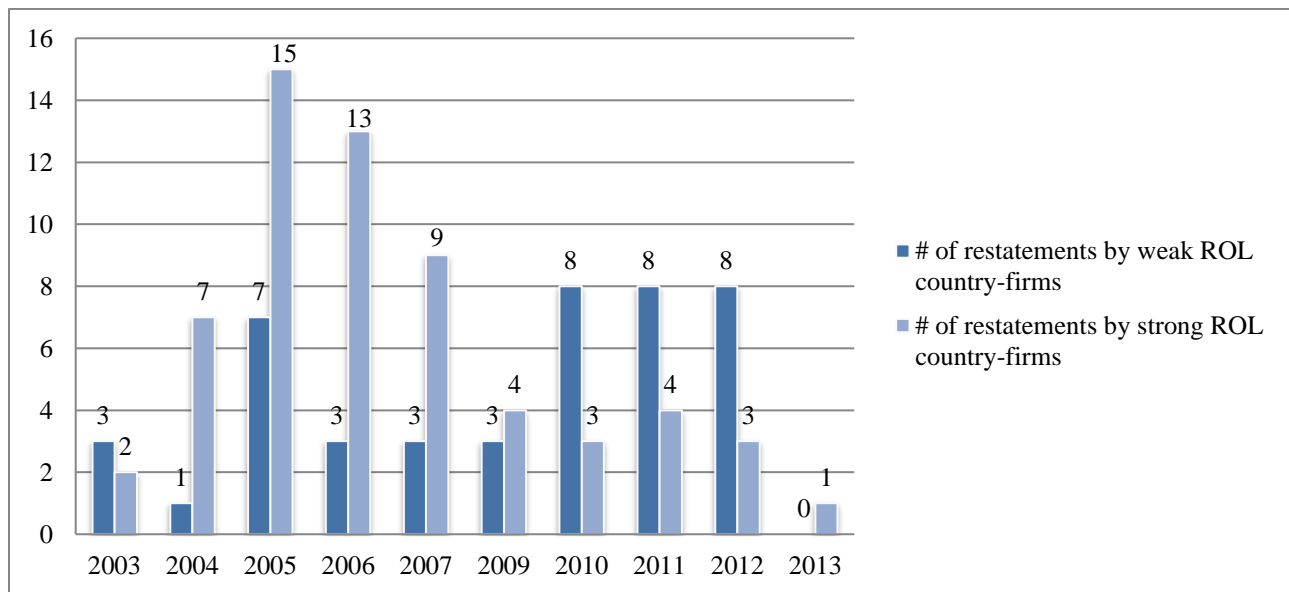


Figure 2 plots the frequency of restatements separately for weak ROL and strong ROL firms.

Figure 3: Contagion returns by disclosure year and the strength of home country ROL

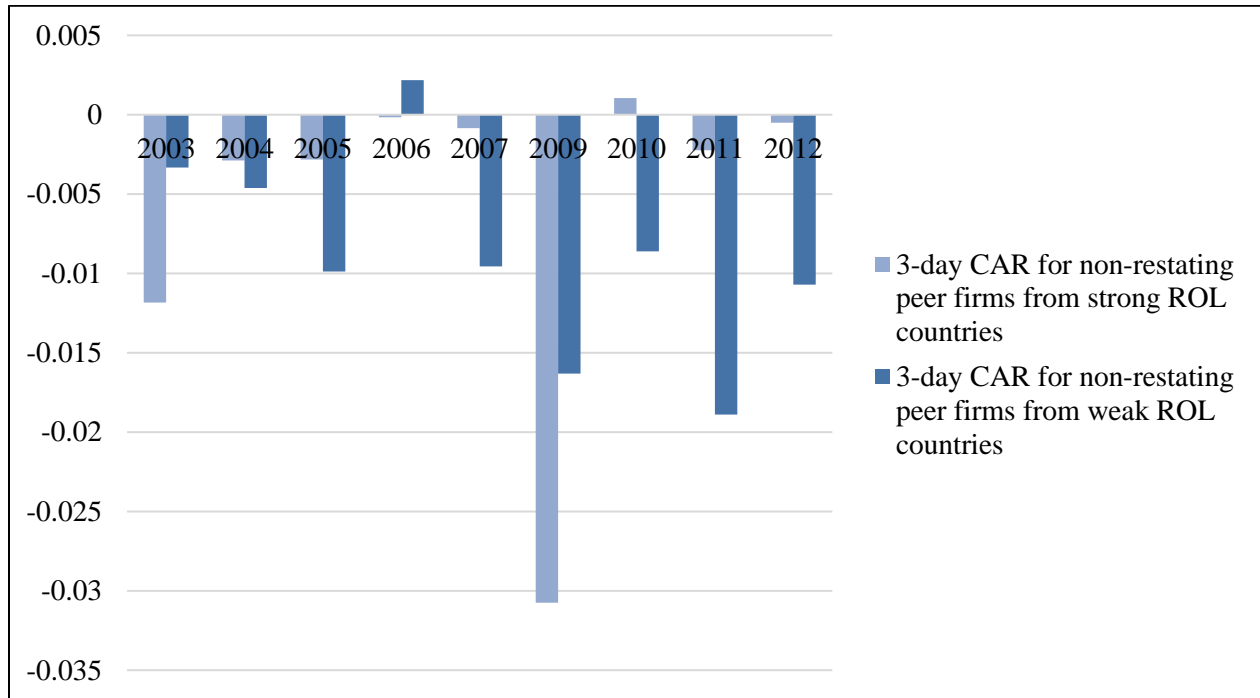


Figure 3 plots the median three-day cumulative market-adjusted returns of non-restating home country peer firms by disclosure year and home country ROL. This plot only covers years where there are both restatements by strong ROL and weak ROL firms.

Table 1: Sample selection

Sample selection procedure	# of restatements
All restatements in Audit Analytics disclosed from January 2003 through June 2013 but excluding 2008	11,439
Less restatements made by U.S. firms and by non-U.S.OTC traded firms	(11,006)
All restatements in Audit Analytics issued by non-U.S. firms that are listed on major U.S. exchanges (NYSE, NASDAQ and AMEX) from 2003 to 2014, excluding 2008	433
Less restatements with missing stock data for the restating firms	(177)
Less restatements that are disclosed within +/- 3 days around quarterly earnings release	(42)
Less restatements where the three-day cumulative abnormal return for the restating firms around the restatement disclosure dates are greater than -0.1%	(109)
Final sample	105

Table 1 details the sample selection procedure. We obtain our sample of accounting restatements from Audit Analytics. Our initial sample includes all restatements issued by foreign firms that are listed on major U.S. exchanges, i.e., NYSE, NASDAQ, and AMEX, from January 2003 through June 2013 but excluding 2008. We include American Depositary Receipts (ADRs) and foreign direct listings, and exclude OTC-traded firms and private placement issuers. There are 433 restatements in our initial sample. After excluding restatements with missing financial and stock market data, 256 restatements remain in the sample. We further exclude 42 events where restatement dates are within +/- three days around the quarterly earnings release dates. This step ensures that restatement announcement returns are not induced by quarterly earnings releases. Finally, we exclude restatements where the three-day cumulative abnormal returns for the restating firms are greater than -0.1%. Our final sample includes 105 restatements that adversely affect shareholders' equity at the restating firms.

Table 2: Distribution of restatements by home country ROL

Weak ROL countries	ROL index	Number of restatements	% of the total sample
Argentina	-0.58	1	0.01
Brazil	-0.49	3	0.03
China	-0.49	21	0.20
Colombia	-0.67	1	0.01
Greece	0.78	2	0.02
Indonesia	-0.82	1	0.01
India	0.16	1	0.01
Israel	0.81	6	0.06
Italy	0.47	1	0.01
Korea (Rep.)	0.97	2	0.02
South Africa	0.08	2	0.02
Turkey	0.16	1	0.01
Taiwan	1.01	1	0.01
Venezuela	-1.22	1	0.01
Subtotal/average (Weak ROL)	0.01	44	0.42
Strong ROL countries	ROL index	Number of restatements	% of the total sample
Australia	1.71	3	0.03
Offshore Centers	1.55	5	0.05
Canada	1.66	24	0.23
Chile	1.27	1	0.01
France	1.40	4	0.04
Germany	1.66	1	0.01
Hong Kong	1.61	6	0.06
Japan	1.24	1	0.01
Luxembourg	1.83	1	0.01
Netherlands	1.75	1	0.01
Norway	1.91	2	0.02
Singapore	1.76	1	0.01
Sweden	1.78	1	0.01
Switzerland	1.90	5	0.05
United Kingdom	1.55	5	0.05
Subtotal/average (Strong ROL)	1.64	61	0.58
Total all countries	1.24 (Median)	105	1.00

This table describes the breakdown of our final restatement sample by home country ROL. Strong (weak) ROL countries are countries where ROL are above (below) the country sample median of 1.24. The ROL index is obtained from Worldwide Governance Indicators (WGI) created by the World Bank. We use the ROL index for the year 2005. Following Srinivasan, Wahid, and Yu (2015), we include the Bahamas, Bermuda, the Cayman Islands, the Virgin Islands, and Papua New Guinea in Offshore Centers and classify them as strong ROL countries since they follow the British legal system.

Table 3: Restatement characteristics

Restatement characteristics	All restatements		Restatements from weak ROL countries		Restatements from strong ROL countries		P-values Weak=Strong
Panel A: Basic characteristics							
	<i>Mean</i>	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	<i>N</i>	
<i>Duration (# of months)</i>	25.56	105	22.89	44	27.49	61	0.23
<i>Stealth_Disclosure</i>	0.52	105	0.50	44	0.54	61	0.68
Panel B: Disclosure methods							
	<i># of restatements</i>	<i>Total</i>	<i># of restatements</i>	<i>Total</i>	<i># of restatements</i>	<i>Total</i>	
10-K	7	105	3	44	4	61	
10-K/A	3	105	2	44	1	61	
10-Q/A	4	105	1	44	3	61	
20-F	23	105	10	44	13	61	
20-F/A	14	105	6	44	8	61	
40-F	2	105	0	44	2	61	
40-F/A	2	105	0	44	2	61	
6-K	12	105	8	44	4	61	Not calculated
8-K	22	105	10	44	12	61	
8-K/A	1	105	0	44	1	61	
ARS	1	105	0	44	1	61	
F-4/A	1	105	0	44	1	61	
NT 10-K	1	105	1	44	0	61	
NT 20-F/A	1	105	1	44	0	61	
Press Release	11	105	2	44	9	61	

Table 3 presents several restatement characteristics of our restatement sample. In Panel A, *Duration (# of months)* is the length of the restating period in months. *Stealth_Disclosure* is an indicator variable equal to one if restatements are reported in regularly scheduled financial statements or in amendments to regularly scheduled financial statements without a separate filing or press release, and zero otherwise. In Panel B, *Disclosure methods* indicate the earliest SEC form from which the restatement has been obtained. Descriptions of the SEC filings that appear under *Disclosure methods* are in Appendix B. P-values are based on two-sample two-tailed t-tests of the means.

Table 3 (continued)

Panel C: Accounting issues							
	All restatements		Restatements from weak ROL countries		Restatements from strong ROL countries		P-values Weak=Strong
	<i>Mean</i>	<i>N</i>	<i>Mean</i>	<i>N</i>	<i>Mean</i>	<i>N</i>	
Accounting rule application failures	0.93	105	0.89	44	0.97	61	0.14
Financial fraud, irregularities, and misrepresentations	0.00	105	0.00	44	0.00	61	n/a
Errors - accounting and clerical applications	0.03	105	0.05	44	0.03	61	0.74
Other significant issues	0.16	105	0.16	44	0.16	61	0.95
<i>Litigation</i>	0.25	105	0.16	44	0.31	61	0.07
<i>SEC_Investigation</i>	0.11	105	0.11	44	0.11	61	0.99

Table 3 (continued) Panel C presents the accounting issues associated with the restatements and other legal events related to the restatements. Note that the sum of the four categories, i.e., *Accounting rule application failures*, *Financial fraud, irregularities and misrepresentations*, *Errors - accounting and clerical applications*, and *Other significant issues*, does not equal one. This is because the four categories are not mutually exclusive, for example, a restatement can involve both accounting rule application failures and other significant issues. *Litigation* is an indicator variable equal to one if restatements involve securities class action lawsuits, and zero otherwise. *SEC_Investigation* is an indicator variable equal to one if restatement disclosures identify SEC investigations of the registrants, and zero otherwise. P-values are based on two-sample two-tailed t-tests of the means.

Table 4: Home country contagion effects – univariate analyses with t-tests

Panel A: Announcement returns						
Event window	Day -1 to +1			Day -1 to 0		
Categories of firms	<i>N</i>	<i>Mean</i> [†]	<i>Median</i>	<i>N</i>	<i>Mean</i>	<i>Median</i>
(1) All restating firms	105	-6.46%*** ^c	-4.10%	105	-4.10%***	-2.45%
(2) All non-restating peer firms	8,651	-0.69%***	-0.57%	8,651	-0.42%***	-0.35%

Panel B: Post announcement returns						
Event window	Day +2 to +25			Day +2 to +35		
Categories of firms	<i>N</i>	<i>Mean</i>	<i>Median</i>	<i>N</i>	<i>Mean</i>	<i>Median</i>
(1) All restating firms	105	0.68%	-0.51%	105	0.13%	-0.66%
(2) All non-restating peer firms	8,651	-0.32%**	-1.31%	8,651	-1.30%***	-2.20%

Table 4 Panel A(B) presents the mean and median cumulative market-adjusted abnormal returns of restating and non-restating home country peer firms for various windows around(after) restatement disclosure dates. Non-restating home country peer firms are firms that share the same home country with the restating firms, but have not restated within the preceding two weeks of the restating firm's restatement date. Market return is measured by the daily return of the S&P Index. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test. When calculating the mean CARs of non-restating home country peer firms, we truncate peer firms' returns at the 1% and 99% levels to reduce the effect of extreme observations.

†Note that the mean CARs for the restating firms in the [-1, +1] window are negative by construction, because we limit our restatement sample to only restatement that adversely affect shareholders' wealth at the restating firms. We use a "c" in the superscripts to denote it.

Table 5: Summary statistics for regression analyses

Panel A: Simple statistics

Variables	N	Mean	Median	Std Dev	Minimum	Maximum
CAR	8,560	-0.007	-0.006	0.049	-0.175	0.177
ROL	8,560	0.857	1.661	1.002	-0.820	1.899
Big_Four	8,560	0.746	1.000	0.435	0.000	1.000
SameAuditor	8,332	0.230	0.000	0.421	0.000	1.000
SameIndustry	8,560	0.041	0.000	0.198	0.000	1.000
EM_Rank	6,888	0.500	0.500	0.289	0.000	1.000
Size	8,560	6.454	6.029	2.401	-1.492	14.485
ROA	8,560	-0.023	0.028	0.228	-1.288	0.290
Restating_3CAR	8,560	-0.078	-0.046	0.092	-0.446	-0.002
Restating_Size	8,560	5.749	5.504	1.958	1.881	12.290
Stealth_Disclosure	8,560	0.412	0.000	0.492	0.000	1.000
SEC_Investigation	8,560	0.123	0.000	0.329	0.000	1.000
Duration_Year	8,560	1.825	1.247	1.575	0.244	6.499

Table 5 Panel A presents summary statistics for all variables used in the regression analyses. All variables are defined in Appendix A.

Table 5: Summary statistics for regression analyses (continued)

Panel B: Correlation matrix

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1	CAR	-	0.095*	0.101*	-0.013	-0.044*	-0.077*	0.109*	0.089*	0.004	-0.018	-0.015	0.012	0.036*
2	ROL	0.111*	-	0.254*	-0.013	0.043*	-0.046*	0.087*	-0.134*	-0.162*	0.020*	0.032*	0.029*	0.086*
3	Big_Four	0.104*	0.268*	-	-0.091*	-0.009	-0.205*	0.410*	0.077*	-0.008	0.089*	0.047*	-0.019	0.075*
4	SameAuditor	-0.023*	-0.010	-0.091*	-	0.036*	0.019	-0.039*	-0.013	0.056*	0.070*	0.051*	0.006	0.000
5	SameIndustry	-0.058*	0.058*	-0.009	0.036*	-	0.025*	-0.050*	-0.069*	0.023*	0.075*	0.007	-0.018	0.009
6	EM_Rank	-0.067*	-0.054*	-0.205*	0.019	0.025*	-	-0.231*	-0.418*	-0.007	-0.061*	-0.022*	0.013	-0.066*
7	Size	0.085*	0.105*	0.382*	-0.030*	-0.051*	-0.204*	-	0.328*	0.041*	0.147*	0.038*	-0.028*	0.107*
8	ROA	0.044*	-0.132*	0.044*	-0.015	-0.045*	-0.172*	0.385*	-	0.042*	0.025*	0.001	-0.007	0.040*
9	Restating_3CAR	0.009	-0.028*	0.006	0.015	0.028*	-0.005	0.032*	0.013	-	0.235*	0.392*	-0.051	-0.055
10	Restating_Size	-0.024*	0.104*	0.096*	0.077*	0.074*	-0.066*	0.168*	0.031*	0.168*	-	0.103	0.036	0.261*
11	Stealth_Disclosure	-0.012	0.138*	0.047*	0.051*	0.007	-0.022*	0.039*	0.000	0.296*	0.101	-	-0.202*	-0.206*
12	SEC_Investigation	0.017	-0.006	-0.019	0.006	-0.018	0.013	-0.028*	-0.005	-0.106	0.044	-0.202*	-	0.099
13	Duration_Year	0.038*	0.187*	0.093*	-0.004	-0.013	-0.065*	0.113*	0.013	-0.139	0.291*	-0.238*	0.119	-

Table 5 Panel B presents Pearson and Spearman correlation coefficients of all variables used in the regression analyses. Pearson correlations are reported on the left bottom corner and Spearman correlations are reported on the right top corner. Correlations between restatement-level variables, i.e., *Restating_3CAR*, *Restating_Size*, *Stealth_Disclosure*, *SEC_Investigation*, and *Duration_Year*, are calculated with non-repeating observations at the restatement-level. * denotes significance level at less than 10%. All variables are defined in Appendix A.

Table 6: Home country contagion effects – multivariate regression analyses

Variables	Predicted sign	(1) CAR	(2) CAR	(3) CAR	(4) CAR	(5) CAR
Big_Four	+	0.831*** (4.94)				0.681*** (3.54)
SameAuditor	-		-0.281** (-2.11)			-0.070 (-0.52)
SameIndustry	-			-1.085*** (-4.27)		-1.163*** (-4.27)
EM_Rank	-				-0.697*** (-3.19)	-0.562** (-2.54)
Size	?	0.080*** (2.86)	0.156*** (5.68)	0.148*** (5.51)	0.123*** (4.14)	0.073** (2.36)
ROA	+	0.619** (2.19)	0.350 (1.26)	0.413 (1.49)	0.570* (1.77)	0.624* (1.92)
Restating_3CAR	+	1.121* (1.68)	0.961 (1.43)	1.164* (1.76)	1.244 (1.62)	1.164 (1.51)
Restating_Size	-	-0.033 (-1.35)	-0.034 (-1.37)	-0.017 (-0.68)	-0.008 (-0.29)	-0.006 (-0.22)
Stealth_Disclosure	?	-0.142 (-1.16)	-0.257** (-2.06)	-0.157 (-1.28)	-0.175 (-1.30)	-0.260* (-1.88)
SEC_Investigation	-	0.267 (1.46)	0.214 (1.16)	0.287 (1.58)	0.349* (1.71)	0.301 (1.48)
Duration_Year	-	-0.050 (-1.47)	-0.043 (-1.28)	-0.054 (-1.61)	-0.033 (-0.93)	-0.032 (-0.90)
Constant		-2.632*** (-4.97)	-2.248*** (-4.25)	-2.232*** (-4.18)	-2.386*** (-4.11)	-2.577*** (-4.27)
Year FE		YES	YES	YES	YES	YES
Industry FE		YES	YES	YES	YES	YES
SE Cluster		Peer firm	Peer firm	Peer firm	Peer firm	Peer firm
Observations		8,560	8,332	8,560	6,888	6,742
Adjusted R-squared		0.0416	0.0403	0.0395	0.0375	0.0432
F-statistic		11.72***	11.28***	11.82***	9.92***	10.54***

Table 6 presents OLS regression results for equation (1):

$$CAR = \beta_0 + \beta_1 \text{Factors} + \text{Non-restating peer firm_Controls} + \text{Restatement_Controls} + \varepsilon$$

***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test. Coefficient estimates are multiplied by 100 in the table to facilitate interpretation. *Factors* include *Big_Four*, *SameAuditor*, *SameIndustry*, and *EM_Rank*. All variables are defined in Appendix A. Year and industry fixed effects are included. Standard errors are clustered at the non-restating home country peer firm level.

Table 7: Home country contagion effects and the strength of home market institutions – univariate analyses with two-sample t-tests

Panel A: Announcement returns						
Event window	Day -1 to +1			Day -1 to 0		
Categories of firms	<i>N</i>	<i>Mean</i> [†]	<i>Median</i>	<i>N</i>	<i>Mean</i>	<i>Median</i>
(1) All restating firms	105	-6.46% *** ^c	-4.10%	105	-4.10% ***	-2.45%
(2) Restating firms from weak ROL countries	44	-6.73% *** ^c	-4.22%	44	-4.36% ***	-2.30%
(3) Restating firms from strong ROL countries	61	-6.28% *** ^c	-4.10%	61	-3.91% ***	-2.72%
P-values: Mean (2)=Mean (3)		0.77			0.67	
(4) All non-restating peer firms	8,651	-0.69% ***	-0.57%	8,651	-0.42% ***	-0.35%
(5) Non-restating peer firms from weak ROL countries	3,497	-1.32% ***	-1.17%	3,489	-0.77% ***	-0.62%
(6) Non-restating peer firms from strong ROL countries	5,154	-0.26% ***	-0.28%	5,162	-0.19% ***	-0.21%
P-values: Mean (5)=Mean (6)		<0.01			<0.01	
Panel B: Post-announcement returns						
Event window	Day +2 to +25			Day +2 to +35		
Categories of firms	<i>N</i>	<i>Mean</i>	<i>Median</i>	<i>N</i>	<i>Mean</i>	<i>Median</i>
(1) All restating firms	105	0.68%	-0.51%	105	0.13%	-0.66%
(2) Restating firms from weak ROL countries	44	0.43%	-4.24%	44	-0.86%	-4.20%
(3) Restating firms from strong ROL countries	61	0.87%	0.16%	61	0.84%	-0.17%
P-values: Mean (2)=Mean (3)		0.90			0.98	
(4) All non-restating peer firms	8,651	-0.32% **	-1.31%	8,651	-1.30% ***	-2.20%
(5) Non-restating peer firms from weak ROL countries	3,477	-1.13% ***	-2.35%	3,493	-2.93% ***	-3.97%
(6) Non-restating peer firms from strong ROL countries	5,174	0.22%	-0.80%	5,158	-0.20%	-1.37%
P-values: Mean (5)=Mean (6)		<0.01			<0.01	

Table 7 Continued

Panel C: Announcement returns partitioned by the severity of restatements						
Event window	Day -1 to +1					
	<i>Less severe restatements: Restating return > median</i>			<i>More severe restatements: Restating return ≤ median</i>		
Categories of firms	<i>N</i>	<i>Mean</i> †	<i>Median</i>	<i>N</i>	<i>Mean</i>	<i>Median</i>
(1) All restating firms	52	-1.93%*** ^c	-1.78%	53	-10.91%***	-8.16%
(2) Restating firms from weak ROL countries	22	-2.11%*** ^c	-1.82%	22	-11.35%***	-9.51%
(3) Restating firms from strong ROL countries	30	-1.81%*** ^c	-1.61%	31	-10.60%***	-7.33%
P-values: Mean (2)=Mean (3)		0.30			0.77	
(4) All non-restating peer firms	3,455	-0.73%***	-0.68%	5,196	-0.66%***	-0.50%
(5) Non-restating peer firms from weak ROL countries	1,673	-1.19%***	-1.29%	1,824	-1.46%***	-1.03%
(6) Non-restating peer firms from strong ROL countries	1,782	-0.05%	-0.29%	3,372	-0.37%***	-0.27%
P-values: Mean (5)=Mean (6)		<0.01			<0.01	

Table 7 Panel A(B) presents the mean and median cumulative market-adjusted abnormal returns of restating firms and non-restating home country peer firms for various windows around(after) restatement disclosure dates. Panel C presents announcement returns for restating firms and non-restating home country peer firms with a median split on restating firm's returns. Non-restating home country peer firms are firms that share the same home country with the restating firms, but have not restated within the preceding two weeks of the restating firm's restatement date. Market return is measured by the daily return of the S&P Index. We first calculate the buy-and-hold returns of the firms and the buy-and-hold return of the S&P Index. We then subtract the latter from the former to obtain the cumulative market-adjusted return for each return window. P-values to test whether mean (2) is equal to mean (3) are based on two-sample two-tailed t-tests. P-values to test whether mean (5) is equal to mean (6) are based on two-sample two-tailed t-tests. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test. †Note that the mean CARs for the restating firms in the [-1, +1] window are negative by construction, because we limit our restatement sample to only restatement that adversely affect shareholders' wealth at the restating firms. We use a "c" in the superscripts to denote it.

Table 8: Home country contagion effects and the strength of home market institutions – multivariate regression analyses

Variables	Predicted sign	(1) CAR	(2) CAR
ROL	+	0.306*** (3.19)	0.299*** (3.10)
Big_Four	+		0.593*** (3.06)
SameAuditor	-		-0.070 (-0.51)
SameIndustry	-		-1.174*** (-4.30)
EM_Rank	-		-0.580*** (-2.61)
Size	?	0.131*** (4.22)	0.073** (2.32)
ROA	+	0.853*** (2.61)	0.734** (2.24)
Restating_3CAR	+	1.321* (1.73)	1.251* (1.64)
Restating_Size	-	-0.025 (-0.97)	-0.026 (-1.00)
Stealth_Disclosure	?	-0.182 (-1.36)	-0.282** (-2.07)
SEC_Investigation	-	0.289 (1.42)	0.244 (1.19)
Duration_Year	-	-0.019 (-0.54)	-0.022 (-0.61)
Constant		-3.155*** (-5.51)	-2.821*** (-4.63)
Year FE		YES	YES
Industry FE		YES	YES
SE Cluster		Peer firm	Peer firm
Observations		6,888	6,742
Adjusted R-squared		0.0376	0.0446
F-statistic		9.40***	10.55***

Table 8 presents OLS regression results for equation (2)

$CAR = \beta_0 + \beta_1 ROL + \beta_{2-5} Factors + Non\text{-}restating\ peer\ firm_Controls + Restatement_Controls + \varepsilon$. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test. Coefficient estimates are multiplied by 100 in the table to facilitate interpretation. *Factors* include *Big_Four*, *SameAuditor*, *SameIndustry*, and *EM_Rank*. All variables are defined in Appendix A. Year and industry fixed effects are included. Standard errors are clustered at the non-restating home country peer firm level.

Table 9: Home country contagion effects excluding restatements issued by Chinese and Canadian firms

Variables	Predicted sign	(1) CAR	(2) CAR
ROL	+	0.550*** (2.61)	0.441* (1.86)
Big_Four	+		-0.197 (-0.58)
SameAuditor	-		0.119 (0.51)
SameIndustry	-		-1.260*** (-2.85)
EM_Rank	-		-1.458*** (-3.18)
Size	?	0.074 (1.31)	0.059 (0.97)
ROA	+	1.437* (1.76)	0.683 (0.84)
Restating_3CAR	+	3.780** (2.17)	5.233*** (2.91)
Restating_Size	-	-0.203*** (-3.75)	-0.216*** (-3.57)
Stealth_Disclosure	?	0.195 (0.75)	0.086 (0.33)
SEC_Investigation	-	0.119 (0.23)	0.167 (0.33)
Duration_Year	-	0.105 (1.33)	0.099 (1.21)
Constant		-1.517* (-1.73)	0.012 (0.01)
Year FE		YES	YES
Industry FE		YES	YES
SE Cluster		Peer firm	Peer firm
Observations		1,326	1,295
Adjusted R-squared		0.0728	0.0868
F-statistic		3.82***	3.98***

Table 9 reports OLS regression results of estimating equation (2) with a subsample of restatements that excludes restatements issued by Canadian and Chinese firms. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test. Coefficient estimates are multiplied by 100 in the table to facilitate interpretation. All variables are defined in Appendix A. Year and industry fixed effects are included. Standard errors are clustered at the non-restating home country peer firm level.

Table 10: Home country contagion effects and changes in fundamentals

Variables	Predicted sign	(1) CAR	(2) CAR	(3) CAR
ROL	+	0.309*** (3.04)	0.297*** (2.66)	0.293*** (2.64)
Δ ROA	?	-0.105 (-0.21)		-0.536 (-0.85)
Δ Investment	?		0.082* (1.65)	0.080 (1.62)
Big_Four	+	0.400* (1.93)	0.299 (1.23)	0.303 (1.25)
SameAuditor	-	-0.107 (-0.73)	-0.179 (-1.18)	-0.175 (-1.15)
SameIndustry	-	-1.248*** (-4.31)	-1.272*** (-3.92)	-1.260*** (-3.88)
EM_Rank	-	-0.548** (-2.37)	-0.663** (-2.53)	-0.650** (-2.47)
Size	?	0.069** (2.04)	0.067* (1.80)	0.071* (1.89)
ROA	+	0.681** (1.96)	0.756* (1.78)	0.635 (1.53)
Restating_3CAR	+	1.299 (1.63)	1.477* (1.66)	1.481* (1.67)
Restating_Size	-	0.008 (0.30)	0.025 (0.80)	0.025 (0.81)
Stealth_Disclosure	?	0.234 (1.12)	-0.280* (-1.76)	-0.278* (-1.74)
SEC_Investigation	-	-0.290** (-2.00)	0.363 (1.56)	0.363 (1.56)
Duration_Year	-	-0.023 (-0.61)	-0.012 (-0.27)	-0.011 (-0.25)
Constant		-2.843*** (-4.42)	-2.973*** (-3.89)	-3.007*** (-3.92)
Year FE		YES	YES	YES
Industry FE		YES	YES	YES
SE Cluster		Peer firm	Peer firm	Peer firm
Observations		6,014	4,758	4,758
Adjusted R-squared		0.0443	0.0492	0.0492
F-statistic		9.03***	8.57***	8.36***

Table 10 presents OLS regression results for equation (2) with two additional variables, Δ ROA and Δ Investment. Δ ROA is the change in ROAs of home country peer firms one year after the restatement. Δ Investment is the change in investment (calculated as capital expenditure plus R&D expense scaled by prior-year total assets) of home country peer firms from year t-1 to year t+1, where year t denotes the restatement year. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test. Coefficient estimates are multiplied by 100 in the table to facilitate interpretation. All variables are defined in Appendix A. Year and industry fixed effects are included. Standard errors are clustered at the non-restating home country peer firm level.

Table 11: Home country contagion effects and subsequent restatements

Variables	Predicted sign	(1) Within 15 days CAR	(2) Within 40 days CAR	(3) Within 120 days CAR	(4) Within 365 days CAR
RestateLater	?	0.086 (0.11)	0.745 (1.46)	0.166 (0.37)	0.080 (0.34)
ROL	+	0.299*** (3.10)	0.298*** (3.09)	0.300*** (3.10)	0.299*** (3.10)
Big_Four	+	0.593*** (3.06)	0.589*** (3.04)	0.593*** (3.06)	0.594*** (3.07)
SameAuditor	-	-0.070 (-0.51)	-0.069 (-0.51)	-0.069 (-0.51)	-0.070 (-0.52)
SameIndustry	-	-1.174*** (-4.30)	-1.176*** (-4.31)	-1.172*** (-4.28)	-1.174*** (-4.30)
EM_Rank	-	-0.581*** (-2.61)	-0.593*** (-2.67)	-0.583*** (-2.62)	-0.586*** (-2.64)
Size	?	0.073** (2.33)	0.074** (2.38)	0.074** (2.36)	0.073** (2.34)
ROA	+	0.733** (2.24)	0.717** (2.19)	0.727** (2.24)	0.731** (2.24)
Restating_3CAR	+	1.252* (1.64)	1.241 (1.62)	1.243 (1.62)	1.247 (1.62)
Restating_Size	-	-0.026 (-1.00)	-0.026 (-1.00)	-0.026 (-1.00)	-0.026 (-1.00)
Stealth_Disclosure	?	-0.282** (-2.07)	-0.279** (-2.05)	-0.281** (-2.06)	-0.282** (-2.07)
SEC_Investigation	-	0.244 (1.20)	0.246 (1.21)	0.246 (1.21)	0.244 (1.20)
Duration_Year	-	-0.022 (-0.61)	-0.023 (-0.63)	-0.022 (-0.62)	-0.023 (-0.62)
Constant		-2.821*** (-4.63)	-2.839*** (-4.68)	-2.836*** (-4.67)	-2.830*** (-4.65)
Year FE		YES	YES	YES	YES
Industry FE		YES	YES	YES	YES
SE Cluster		Peer firm	Peer firm	Peer firm	Peer firm
Observations		6,742	6,742	6,742	6,742
Adjusted R-squared		0.0445	0.0448	0.0445	0.0445
F-statistic		10.23***	10.32***	10.27***	10.28***

Table 11 presents OLS regression results for equation (2) with an additional variable *RestateLater*. *RestateLater* is as an indicator variable equal to one if home country peer firms issue their own restatements within 15 days (model 1), 40 days (model 2), 120 days (model 3), and 365 days (model 4) after the initial restatements of restating firms, and equal to zero otherwise. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test. Coefficient estimates are multiplied by 100 in the table to facilitate interpretation. All variables are defined in Appendix A. Year and industry fixed effects are included. Standard errors are clustered at the non-restating home country peer firm level.

Table 12: Home country contagion effects and the strength of home market institutions with fixed effects for disclosure methods

Variables	Predicted sign	Table 6 Model 1	Table 6 Model 2	Table 6 Model 3	Table 6 Model 4	Table 6 Model 5	Table 8 Model 2
ROL	+						0.449*** (4.46)
Big_Four	+	0.872*** (5.16)				0.710*** (3.69)	0.595*** (3.06)
SameAuditor	-		-0.346** (-2.58)			-0.117 (-0.86)	-0.110 (-0.81)
SameIndustry	-			-1.178*** (-4.73)		-1.243*** (-4.71)	-1.273*** (-4.82)
EM_Rank	-				-0.706*** (-3.23)	-0.561** (-2.54)	-0.580*** (-2.61)
Size	?	0.092*** (3.27)	0.166*** (6.00)	0.163*** (6.04)	0.134*** (4.48)	0.080** (2.57)	0.077** (2.45)
ROA	+	0.567** (2.02)	0.316 (1.14)	0.357 (1.30)	0.546* (1.70)	0.602* (1.86)	0.741** (2.26)
Restating_3CAR	+	0.023 (0.03)	0.109 (0.15)	0.198 (0.28)	-0.276 (-0.35)	-0.261 (-0.32)	-0.505 (-0.63)
Restating_Size	-	-0.060** (-2.20)	-0.058** (-2.09)	-0.045* (-1.65)	-0.036 (-1.30)	-0.032 (-1.14)	-0.045 (-1.58)
SEC_Investigation	-	-0.149 (-0.66)	-0.157 (-0.69)	-0.111 (-0.50)	-0.196 (-0.79)	-0.194 (-0.78)	-0.297 (-1.20)
Duration_Year	-	0.032 (0.75)	0.020 (0.47)	0.023 (0.55)	0.046 (1.05)	0.024 (0.56)	0.026 (0.59)
Constant		-3.021*** (-5.42)	-2.497*** (-4.44)	-2.572*** (-4.58)	-2.454*** (-3.98)	-2.655*** (-5.11)	-3.132*** (-5.59)
Year FE		YES	YES	YES	YES	YES	YES
Industry FE		YES	YES	YES	YES	YES	YES
Disclosure FE		YES	YES	YES	YES	YES	YES
SE Cluster		Peer firm	Peer firm	Peer firm	Peer firm	Peer firm	Peer firm
Observations		8,560	8,332	8,560	6,888	6,742	6,742
Adjusted R-squared		0.0533	0.0505	0.0512	0.0486	0.0545	0.0574
F-statistic		10.68***	10.03***	10.62***	8.88***	10.09***	10.10***

Table 12 presents results of estimating equation (1) and equation (2) with disclosure method fixed effects. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test. Coefficient estimates are multiplied by 100 in the table to facilitate interpretation. All variables are defined in Appendix A. Year and industry fixed effects are included. Standard errors are clustered at the non-restating home country peer firm level.