

**International Oversight and Global Capital Flow:  
Evidence from PCAOB International Inspections**

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# **International Oversight and Global Capital Flow: Evidence from PCAOB International Inspections**

## **Abstract**

We document a significant decline in the United States (U.S.) as a destination for foreign listings over the past two decades. Leveraging the staggered introduction of Public Company Accounting Oversight Board (PCAOB) international inspections across 55 countries worldwide, we investigate the role of PCAOB regulatory oversight in contributing to this prolonged trend. Our stacked difference-in-differences analyses demonstrate that companies are between 8 and 16 percent less likely to pursue U.S. listings when doing so exposes their audits to PCAOB inspections. This deterrent effect is concentrated: (1) among companies for whom PCAOB inspections likely impose greater compliance costs, (2) in industries foreign governments are likely to view as important for national security, and (3) in countries with which the U.S. is experiencing more political tension. Placebo tests show that there is no similar reduction in foreign listings to non-U.S. markets after the PCAOB gains inspection access in companies' home countries; indeed, listings to some non-U.S. markets *increase*, suggesting that companies from PCAOB-impacted countries shift their listings to non-U.S. host countries to avoid inspection.

## 1. INTRODUCTION

We present large-sample empirical evidence of a substantial decline in the United States (U.S.) as a destination for foreign listings of non-U.S. companies over the past two decades.<sup>1</sup> While the number of worldwide foreign listings in our sample has more than quadrupled between 2004 and 2022, the percentage of these listings in the U.S. has fallen from 66 percent to 38 percent in the same period. This decreasing trend is also evident in the market capitalization of foreign listings in the U.S.: While the U.S. absorbed nearly all the market capitalization of foreign listings in 2004, this percentage dropped to 70 percent in 2022. This decrease is not caused by an average company seeking to list in a greater number of foreign exchanges and is robust to excluding the impact of inactive securities, home countries with sparse foreign listings, and listings from mainland China or to Hong Kong. The same trend remains if we compare U.S. listings only to foreign listings in comparable host markets such as the United Kingdom, Germany, Hong Kong, and Singapore.

This time trend appears to suggest that, relative to other markets, the U.S. has become less attractive as a host country for foreign listings over time. Notably, this period of decline coincides with attempts by the Public Company Accounting Oversight Board (PCAOB) - a U.S. regulator created by the Sarbanes-Oxley Act (SOX) - to gain inspection privileges abroad. Under SOX, the PCAOB is obligated to monitor the audits of public companies registered with the Securities and Exchange Commission (SEC) and to conduct comprehensive on-site inspections, regardless of the geographic location of the companies or their auditors. But to conduct inspections in countries outside of the U.S., the PCAOB must be granted access by foreign countries' governments. Since its inception in 2005, the PCAOB has progressively gained access to conduct inspections in more than 50 non-U.S. jurisdictions. While the secular trend in foreign listings that we document is

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<sup>1</sup> We define "foreign listings" as listings on a stock exchange in a host country that is different from the company's home country (i.e., the country where a company's headquarters is located).

almost certainly multicausal, we focus this paper on investigating whether the implementation of PCAOB international inspections has contributed to the decline.

There are at least two reasons why the threat of PCAOB inspections might deter foreign companies from listing in the U.S. First, PCAOB inspections involve the onsite review of audit workpapers which often include highly sensitive information about companies' research and development activities, customer data, and general operations. Foreign companies and/or their governments may fear that PCAOB inspections increase the risk that the U.S. government, competing companies, or other parties gain access to strategically important information. For example, officials in Hong Kong and mainland China have explicitly cited national security and confidentiality concerns when arguing against allowing the PCAOB to conduct inspections, and several strategically important Chinese companies announced that they would delist from U.S. markets rather than allow the PCAOB to inspect their auditors' workpapers (Singleton, 2022). We refer to this as the "proprietary costs mechanism."

Second, PCAOB inspections can increase compliance costs for foreign companies, especially if foreign auditors are lax in their enforcement of U.S. accounting standards and securities laws in the absence of PCAOB oversight. U.S. companies spent heavily to implement systems of internal control over financial reporting (ICFR) as the PCAOB began enforcing section 404 of SOX domestically (Krishnan, Rama, and Zhang, 2008), and some U.S. companies delisted or went "dark" rather than incur those expenses (Leuz, Triantis, and Wang, 2008; Engel, Hayes, and Wang, 2007).<sup>2</sup> If the threat of PCAOB inspections causes foreign auditors to insist that their

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<sup>2</sup> Section 404 of SOX requires that certain companies receive an audit of their ICFR in addition to an audit of their financial statements. Importantly, Section 404 applies to foreign companies listed in the U.S. regardless of whether the PCAOB has inspection privileges in their home countries. Thus, unlike for domestic companies, for which Section 404 and PCAOB inspections were implemented concurrently, the implementation of PCAOB inspections for many foreign companies increases enforcement and oversight while the underlying reporting auditing and reporting requirements are held constant.

U.S.-listed clients make similar ICFR investments, it could substantially increase foreign companies' cost of listing in the U.S. relative to other markets. We refer to this as the “compliance cost mechanism.”

To examine the effect of PCAOB international inspections on foreign listing decisions, we compile an extensive firm-year panel tracking the foreign listing status of non-U.S. companies across 124 home countries and 67 host countries between 2004 and 2022. We then leverage the staggered introduction of PCAOB international inspections across 55 countries worldwide and compare the changes in the U.S. listing propensity of companies from PCAOB-exposed countries (i.e., “treated” companies) between the pre- and post-PCAOB treatment periods, relative to companies which have never or have not yet been exposed to the threat of PCAOB inspection (i.e., “control” companies). We consider companies to be exposed to the threat of PCAOB inspection when the PCAOB initiates an inspection of an auditor in the company's home country or when the PCAOB enters into a cooperative arrangement with the local audit regulator that allows for such inspections, whichever occurs earlier.

Using a stacked cohort difference-in-differences (stacked DID) analysis, we observe between a 2.3 and 4.7 percentage point decline in the likelihood of non-U.S. companies opting for U.S. listings after being exposed to the PCAOB's inspection threat, depending on model specification. Although it cannot account for the entire long-term decline in U.S. listing propensity, this effect size represents an economically significant decrease of between 8 and 16 percent relative to the average U.S. listing propensity in our sample. The effect is robust across different sets of control variables, different fixed effect structures, different samples (e.g., excluding years associated with the financial crisis or companies headquartered in China) and alternative research designs. Furthermore, we show that the pre-event U.S. listing propensities exhibit a parallel trend

across treatment and control companies and that the deterrent effect lasts for up to seven years post treatment.

Our stacked DID identification strategy is important because it rules out many alternative explanations for our findings. The period we study features several notable events and trends that likely affect the propensity of foreign companies to list in the U.S. Among others, these include the global financial crisis, increasing geopolitical tensions (especially between the U.S. and China), the COVID-19 pandemic, and general improvements in investor protection among non-U.S. countries. However, any viable alternative explanation for our findings must not only vary over time, but also by country, in lockstep with the more than 50 PCAOB “treatment” events we study.

Next, we conduct a placebo test to reduce concerns that PCAOB inspection access abroad coincides with a general reduction in foreign listing, not just a reduction in listings to the U.S. We find that there is no significant reduction in foreign listings to the largest non-U.S. markets after the PCAOB gains inspection access in companies’ home countries. On the contrary, listings to some large non-U.S. markets *increase* from countries where the PCAOB gains inspection access, consistent with foreign firms substituting away from the U.S. market to avoid inspection.

We further support our hypothesis that international PCAOB inspections deter foreign companies from listing in the U.S. by providing cross-sectional evidence for plausible mechanisms. First, we identify industries that are likely to be seen as sensitive and/or as important for national security by foreign governments (e.g., aerospace and defense, pharmaceuticals, biotechnology, etc.). Consistent with the proprietary cost mechanism discussed above, we show that the deterrent effect is concentrated among companies in sensitive industries. Likewise, we

find that the deterrent effect is concentrated in countries experiencing more political tension with the U.S., as indicated by differences in voting patterns at the United Nations (Bailey et al. 2017).

We also provide evidence of the compliance costs mechanism. Specifically, we find that the deterrent effect is concentrated among companies subject to Section 404b of SOX, and among those that do not already have a domestic public auditor oversight body (POB) before the PCAOB international inspections start. Both results suggest that companies for whom PCAOB inspections would impose higher compliance costs are more likely to forgo listing in the U.S. when the PCAOB gains inspection privileges in their home countries.

The purpose of the PCAOB is to protect investors from the sorts of fraudulent financial reporting exemplified by Enron and WorldCom. If PCAOB inspections primarily deter companies with low financial reporting quality from listing in the U.S., then this deterrence is consistent with the PCAOB's mission. Because we do not observe which foreign companies would maintain listings in the U.S. absent PCAOB inspection access in their home countries, we cannot examine this question directly. Instead, we infer the type of companies deterred by PCAOB inspections by testing for differences in companies that *do* maintain foreign listings in the U.S. before versus after the PCAOB inspection threat. If companies with (for example) low financial reporting quality are disproportionately deterred by the prospect of PCAOB inspections, then we should see that the average financial reporting quality of foreign companies listed in the U.S. goes up when the PCAOB begins conducting inspections. The evidence presents a mixed picture. We observe that foreign companies retaining their U.S. listings after the PCAOB acquires inspection privileges in their home countries have significantly lower signed accruals. However, there is no evidence suggesting these companies have lower absolute accruals or a reduced likelihood of restating their financial statements. Regarding performance, foreign companies listed in the U.S. after the

PCAOB acquires inspection privileges in their home countries demonstrate faster growth, yet we find no evidence that they yield a higher return on assets.

Our findings contribute to the international listing literature and to the financial regulations literature by presenting the first large-sample empirical evidence of a substantial decline in the propensity of non-U.S. companies to choose the U.S. as their host market over the past two decades. We acknowledge that the literature has examined changes in the competitiveness of exchanges in the U.S. relative to the London Stock Exchange following the SOX (Doidge et al., 2009a; Piotroski and Srinivasan, 2008). However, these initial studies suggested that SOX *increased* the attractiveness of the U.S. relative to other markets, and did so in an era when enforcement of the costliest provisions on SOX were lacking for most foreign listed companies. Our findings suggest the longer-term trend runs the opposite direction, and specifically that PCAOB inspections *decrease* the propensity of foreign companies to list in the U.S.

Our paper also extends the nascent literature on the “real effects” of PCAOB inspections. Although a substantial stream of research has examined how PCAOB inspections impact auditors, their work, and their relationship to their clients (Carcello, Hollingsworth, and Mastrolia, 2011; Lamoreaux, 2016; Krishnan, Krishnan, and Song, 2017; Acito, Hogan, and Mergenthaler, 2018; Khurana, Lundstrom, and Raman, 2021; Aobdia, 2018), the potential downstream effects on corporate decision making are relatively understudied. To our knowledge, there are only three exceptions: (1) Shroff (2020), who finds that when auditors receive “deficiency-free” PCAOB inspection reports, their clients respond by raising additional external capital and increasing investment; (2) Kim, Su, Zhou, and Zhu (2020), who find that PCAOB inspections reduce frictions in mergers and acquisitions; and (3) Kim (2023), who finds that PCAOB inspections can lead to more conservative measurement of intangible assets and, in turn, to a decrease in companies’ use



of mergers in acquisitions. By and large, this nascent literature highlights benefits that PCAOB inspections infer to companies whose auditors are inspected. Our paper adds to this literature by showing that, despite these benefits, many companies choose to avoid PCAOB inspections by opting out of listing in the U.S.

## **2. BACKGROUND AND HYPOTHESIS DEVELOPMENT**

The PCAOB was created by the SOX Act of 2002 in response to numerous incidents of major financial accounting fraud in the U.S. (e.g., Enron, WorldCom, etc.). Debate leading up to the passage of SOX focused on the fact that financial statement auditors failed to prevent these frauds. The PCAOB's mandate is to ensure high quality financial statement audits for U.S.-listed companies, and its responsibilities include conducting comprehensive on-site inspections of public company auditors. These inspections involve a thorough examination of selected audit work. Auditors that provide financial statement opinions for more than 100 U.S.-listed companies undergo annual inspections, while those with 100 or fewer U.S.-listed clients are inspected at least once every three years. The PCAOB employs a combination of risk-based and random methods to select audits for review.

Auditors of foreign companies that are already listed in the U.S. or are seeking U.S. listing status are subject to PCAOB inspections within the same framework as U.S. companies to ensure compliance with SOX and other relevant US regulations. However, international inspections have occurred intermittently in different jurisdictions since the PCAOB's inception, primarily due to permission being withheld by foreign governments. For example, in 2009, the PCAOB intended to inspect auditors in 27 jurisdictions but was only able to conduct inspections in 15 because it was denied access in countries such as China, Finland, France, Germany, and the United Kingdom,

along with seven other European countries.<sup>3</sup> As a result of increasing pressure from the PCAOB and the U.S. Congress (e.g., the passage of the Holding Foreign Companies Accountable Act in 2020), most countries eventually agreed to provide inspection access.

We argue that there are at least two reasons why companies might avoid listing in the U.S. if doing so exposes their auditor to PCAOB inspections. First, companies may forgo listing in the U.S. if they fear PCAOB inspections will provide the U.S. government with access to sensitive or proprietary information. Auditors' workpapers are typically supported by companies' internal records, and often include confidential information about the company, its research and development efforts, its customers, and its general operations. Some financial statement auditors must receive government security clearance to review classified information that is material to their clients' financial records but which the government considers sensitive (e.g., contracts to produce military equipment). Thus, foreign companies and their governments may fear that the PCAOB's review of audit workpapers increases the risk that important information will be leaked or used opportunistically by the U.S. government and/or U.S. companies. Indeed, many of the governments that initially refused to allow the PCAOB inspection access cited concerns about privacy, national security, and sovereignty (Lamoreaux, 2016; Singleton, 2022). Even after agreeing (sometimes following significant pressure) to provide the PCAOB with inspection access, governments may have lingering concerns about privacy or national security. If so, they may encourage some companies – particularly those that possess information considered sensitive – to avoid listing in the U.S. We refer to this as the “proprietary cost mechanism.”

Second, companies may forgo listing in the U.S. if PCAOB inspections increase regulatory and compliance costs. Prior research has found that PCAOB inspection access improves financial

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<sup>3</sup> The 2010 progress report on PCAOB international inspections: [https://pcaobus.org/news-events/news-releases/news-release-detail/progress-on-pcaob-international-inspections\\_273](https://pcaobus.org/news-events/news-releases/news-release-detail/progress-on-pcaob-international-inspections_273).

reporting quality for U.S.-listed foreign companies (Lamoreaux, 2016; Krishnan, Krishnan, and Song, 2017), suggesting that these companies’ auditors do not hold them to the same standard in the absence of PCAOB oversight. Moreover, U.S. companies invested heavily in their financial reporting systems and related controls as the PCAOB began conducting domestic inspections of ICFR audits (Krishnan, Rama, and Zhang, 2008). Some domestic companies delisted or went “dark” rather than make those investments (Leuz, Triantis, and Wang, 2008; Engel, Hayes, and Wang, 2007).<sup>4</sup> If the prospect of PCAOB inspections leads foreign auditors to demand that their U.S.-listed foreign clients undertake comparable investments in ICFR, it may significantly increase the expenses associated with foreign companies’ listing in the U.S. compared to other markets. We refer to this as the “compliance cost mechanism.”

Despite what we argue are plausible mechanisms through which PCAOB inspection access may deter U.S. listings by foreign companies, it is also important to note that the PCAOB’s oversight authority applies exclusively to *auditors*. The PCAOB has no direct jurisdiction over companies themselves, regardless of whether they are foreign or domestic, and no direct access to companies’ records.<sup>5</sup> When the PCAOB finds an audit to be deficient, they publicly name (and sometimes fine) the offending audit firm; however, the associated company remains anonymous. Thus, it is not obvious that the prospect of PCAOB audit inspections will dissuade foreign companies from listing in the U.S.

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<sup>4</sup> As noted by Lang (2008), many other events occurred during the same period as the passage and implementation of SOX. Moreover, SOX increased regulatory costs on companies – primarily by imposing the requirement for an external ICFR audit with Section 404b – and increased monitoring and enforcement by creating the PCAOB at the same time for domestic companies. In our international setting, the delayed (and staggered) implementation of PCAOB inspections allows us to isolate the effect of increased monitoring and enforcement. Our international setting also raises new questions regarding the roles of national sovereignty, national security, and political tension between nations.

<sup>5</sup> The PCAOB can only observe company records when they are captured in an inspected auditor’s workpapers.

It is even possible that increased oversight from the PCAOB *attracts* foreign companies. When a company's internal governance mechanisms or its home country's institutions fail to prevent managerial abuse, external investors may hesitate to provide funds, which can increase the cost of external financing (Shleifer and Vishny, 1997; La Porta et al., 1999). In response, managers may seek to "bond" themselves, signaling their commitment to avoiding excessive private benefits. One effective method of bonding, a substantial literature contends, involves cross listing the company's equity in a market with stringent governance requirements and vigilant market oversight (Karolyi, 2006; Lang et al., 2003; Piotroski and Srinivasan, 2008; Doidge et al., 2009b). Thus, to the extent that the PCAOB inspections bolster the U.S. corporate governance framework, they can amplify the bonding benefits of U.S. listings, thereby encouraging foreign listings in the U.S. Considering these competing arguments, we state our hypothesis in null form as follows:

***H1:** The PCAOB international inspection program has no effect on foreign companies' tendency to list on U.S. exchanges.*

### **3. RESEARCH DESIGN AND SAMPLE CONSTRUCTION**

#### **3.1 Research Design and Main Variable Definition**

The existing literature indicates that the impact of PCAOB international inspections varies across different countries, time periods, inspection formats, and inspection findings (Lamoreaux et al., 2020; Shroff, 2020; Krishnan et al., 2017). A generalized DID with two-way fixed effects in this context may yield biased effect estimates (Baker et al., 2022; Barrios, 2021). Thus, we use a stacked DID design where the control group only includes companies never or not-yet-treated within a certain event window to address potential estimation biases arising from time-varying treatment effects (Cengiz et al., 2019; Deshpande and Li, 2019; Goodman-Bacon, 2021).

We note that a stacked DID design allows us to significantly mitigate endogeneity concerns. For instance, it is possible that the type of companies seeking foreign listings has changed, or that foreign markets have become more attractive relative to U.S. exchanges over the past 20 years for reasons other than PCAOB inspections. However, under our design, any such changes would need to happen in tandem with the implementation of PCAOB inspections in 55 countries across a span of 20 years to confound our analyses. We also include explicit controls for company characteristics, industry characteristics, and country characteristics to further address these concerns. Specifically, we estimate the following model using a panel dataset of company-year observations:

$$FL_{US_{c,i,t}} = \beta_1 Treated\_Post_{c,i,t} + \gamma' Controls + \alpha_{c,t} + \theta_{c,h} + \delta_{c,s} + \epsilon_{c,i,t} \quad (1)$$

where  $FL_{US_{c,i,t}}$  is an indicator variable that equals one if any security of company  $i$  in cohort  $c$  is actively listed and traded in the U.S. in year  $t$ ,  $Treated\_Post_{c,i,t}$  is an indicator variable that equals one if company  $i$  in cohort  $c$  is exposed to the PCAOB's inspection threat in year  $t$ ,  $Controls$  is an array of company-, industry-, and country-level control variables,  $\alpha_{c,t}$  denotes year-cohort fixed effects that account for company-invariant year specific characteristics with respect to cohort  $c$ ,  $\theta_{c,h}$  denotes country-cohort fixed effects that account for time-invariant home country characteristics with respect to cohort  $c$ , and  $\delta_{c,s}$  denotes industry-cohort fixed effects that account for time-invariant two-digit SIC industry characteristics with respect to cohort  $c$ .<sup>6</sup> To estimate the coefficients, we employ Ordinary Least Squares (OLS) regressions and check robustness using Logistic (Logit) regressions. The coefficient  $\beta_1$  captures the average change in companies' propensities to list in the U.S. after being exposed to the PCAOB's inspection threat,

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<sup>6</sup> We adopt these fixed effect structures from Chen et al. (2015) and Liao et al. (2022). We also test alternative fixed effects structures, including company-cohort fixed effects.

relative to the companies in the control group which have not yet been exposed to the threat. To adjust for possible serial and cross-sectional correlations, we cluster standard errors by company-cohort and year-cohort following prior literature (Chen et al., 2015; Liao et al., 2022).<sup>7</sup>

A company becomes threatened (treated) by PCAOB international inspections when the PCAOB initiates an inspection of an auditor in the company's home country or when the PCAOB enters a cooperative arrangement with the local audit regulator, whichever occurs earlier, as either indicates a credible threat and access to audits of U.S.-listed companies in that country. In practice, the PCAOB may initialize international inspections on foreign auditors in a country without a formal cooperative arrangement with the local audit regulator. In such cases, the PCAOB must nevertheless have the (at least tacit) permission the country's government to do so. Among the 55 jurisdictions in which the PCAOB has so far conducted inspections, the first inspection predated a formal agreement in 50. The specific PCAOB inspection start year and arrangement entry year for each country are detailed in Table 1.

We draw on the existing literature to identify and include a comprehensive set of company, industry, and country level control variables that may impact companies' decisions to list in the U.S. The company level control variables, measured annually, include: (1) *RelativeSize*, a sample company's market value as a percentage of the total capitalization of its first listing exchange, to account for capital demand; (2) *ROA*, indicating profitability; (3) *Accruals*, abnormal accruals calculated by subtracting predicted accruals from total accruals, to account for earnings opacity (Francis and Wang, 2008); (4) *AnalystFollowing*, the log-transformed count of analysts following the company, capturing companies' information environment; (5) *Big4Auditor*, a binary variable denoting the use of a Big 4 auditor, reflecting auditor quality; (6) *SalesGrowth*; (7)

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<sup>7</sup> We also follow Chen et al. (2015) and Liao et al. (2022) and check the robustness of results via clustering by country-cohort and year-cohort. The results remain qualitatively the same.

*CapitalExpenditure*; (8) *MTB*, controlling for the company’s growth prospects; (9) *Leverage*; (10) *Interest*; (11) *Cash*, controlling for the company’s need to access external capital; (12) *Institution*; (13) *Insider*, controlling for corporate governance.

Following prior literature (Chen et al., 2015; Liao et al., 2022), we also control for industry and country level characteristics including (1) *IndustryCompetition*, based on the Herfindahl index of two-digit SIC industries to account for competition levels within a country in a given year; (2) *HiTech*, to control for the high-tech industry based on SIC code; (3) *WorldCompetition*, based on the Herfindahl index of two-digit SIC industries across countries to account for global industry competition in a given year; (4) *InvestorProtection*, an index indicating the strength of investor protection for a specific country-year, sourced from the World Bank’s “Doing Business Indicators”; (5) *MarketDevelopment*, the market capitalization of listed companies as a percentage of GDP for a given country-year, sourced from the World Bank’s “World Development Indicators”; (6) *StockLiquidity*, domestic shares traded divided by their market capitalization for a specific country-year, also obtained from the World Bank’s “World Development Indicators.”

Detailed definitions of these variables are provided in Table A1 in the Appendix.

### **3.2 Sample and Data**

We start our sample construction with the complete set of foreign listings by non-U.S. companies up to December 31, 2022, using Compustat North America and Global – Security Monthly databases. From this complete set we exclude listings of companies in the financial industry (SIC 6000-6999) and listings of securities other than common stocks. To ensure that listing in the U.S. is a viable option for our sample companies, for companies with more than one foreign listing, we drop all listings that occur when the company is already listed in the U.S. This step also guarantees that the results are not driven by any potential influence of U.S. listing status

on listings in other countries, which could mechanically amplify the disparity between the number of foreign listings in the U.S. versus in other countries. This process yields 14,170 foreign listings from 11,728 non-U.S. companies and is documented in Panel A of Table A2 of the Appendix. Data from this panel are used for descriptive evidence on the time trend of foreign listings in the U.S.

We generate a panel of company-year observations based on the foreign listings from Panel A of Table A2 as our main sample to test H1. We exclude years outside of our sample period of 2004 to 2022. Note that the earliest year of PCAOB treatment was 2005. We then merge the remaining observations with the Audit Analytics – PCAOB Reports database to obtain PCAOB treatment years, and with Compustat North America and Global – Fundamentals Annual, World Bank Indicators, FactSet, and I/B/E/S to obtain control variables. Observations missing essential control variables for the main company-year regression results are excluded. To mitigate potential bias originating from time-varying treatment effects, following extant research (Baker et al., 2022; Cengiz et al., 2019; Deshpande and Li, 2019; Goodman-Bacon, 2021), we construct the stacked cohort sample with an event window of  $[-4, 7]$ , dropping year 0, i.e., the treatment year.<sup>8</sup> This range spans four years before and seven years after each PCAOB treatment year.<sup>9</sup> Extending the window after the PCAOB treatment year allows us to observe the persistence of the treatment effect. Panel B of Table A2 shows the details. Our main company-year sample consists of 82,118 observations from 4,398 non-U.S. companies.

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<sup>8</sup> Year 0 has an uncertain impact on corporate decisions. We follow Chen et al. (2015) and drop year 0 when constructing stacked cohort samples. Our results are robust to samples keeping year 0.

<sup>9</sup> To ensure that we capture a substantial number of treatment events, we refrain from excluding events occurring within four years after 2004 or seven years before 2022. Consequently, for cohorts linked to these events, companies do not have a complete 11 years of observations. In this analysis, we employ the event window of  $[-4, 7]$ , allowing us to examine the dynamics of the effect over the widest time range. Additionally, we test other balanced event windows such as  $[-3, 3]$ ,  $[-5, 5]$ , and  $[-7, 7]$  in Section 4.2.



Our sample selection procedure follows the foreign listing literature (Liao et al., 2022; Chen et al., 2015; Piotroski and Srinivasan 2008; Doidge et al., 2009a) by including companies that are already listed in at least one foreign country. This approach ensures that sample companies have demonstrated a propensity to list abroad and allows us to focus on a sample where any impact of a regulatory shock to foreign listing is most likely to manifest. The drawback of this approach is that it does not capture the effect on companies' initial foreign listing decisions. To mitigate potential external validity concerns, we follow Chen et al. (2015) and Dambra et al. (2015) and construct a country-year sample that incorporates the foreign listing decisions at the country level. This design enables us to examine the PCAOB impact on foreign listings at a country-year level, including the initial foreign listings of all companies. Table A2, Panel C shows that the country-year sample consists of 6,645 country-year observations from 99 unique countries.

In some other supplemental analysis, we impose additional restrictions on the sample as discussed in detail in the relevant sections below.

## **4. EMPIRICAL RESULTS**

### **4.1 Descriptive Evidence**

Table 2 presents descriptive statistics on the declining trend of foreign listings in the U.S. from 2004 to 2022. Column (1) shows that the total number of foreign listings has more than quadrupled from 2,076 in 2004 to 9,752 in 2022, and Column (2) shows that the corresponding proportion of these listings in the U.S. has fallen from 66% in 2004 to 38% in 2022. Column (3) presents the market capitalization of these foreign listings by converting foreign currencies into USD (\$billions) where possible, and Column (4) the corresponding proportion of the foreign

listing market capitalization in the U.S.<sup>10</sup> These columns show a similar declining trend of foreign listings in the U.S.: while foreign listings in the U.S. accounts for virtually all of the foreign listing market capitalizations (96%) in 2004, in 2022 this percentage has dropped to 70%. To gauge the possibility that the declining proportion of foreign listings in the U.S. is because an average company is increasingly listing on more foreign host markets over time (i.e., listing in the U.S. *and* in other countries), in Columns (5) we present the average number of host countries for foreign listings per company-year. The results show that on average each company lists on 1.03 foreign markets in 2004, and this number increases to 1.13 in 2009 and remains stable afterward. In Column (6), we show that the company-level U.S. listing propensity drops from 69 percent in 2004 to 46 percent in 2022, consistent with the evidence presented in Columns (1) through (4). Table A3 in the Appendix presents further evidence on this declining trend, including a sample that excludes listings from China and in Hong Kong.<sup>11</sup>

Figure 1 presents the graphical evidence using the foreign listing count information in Columns (1) and (2) of Table 2 and Columns (1)-(3) of Table A3 of the Appendix. The decreasing trend of foreign listing propensities in the U.S. over the past two decades is present across different sample restrictions.

Table 3 provides the summary statistics for the variables of the company-year sample (Table A2, Panel B). To mitigate the influence of outliers, we winsorize the continuous variables at the top and bottom one percentiles. The average propensity of a foreign company to list in the

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<sup>10</sup> Because we do not have exchange rates for all foreign currencies in all sample years, Column (3) only sums the market capitalization of companies whose currencies can be converted into USD. This might lead to the under-estimation of the numbers in Column (3) and over-estimation of the proportions in Column (4). However, this should not affect the overall declining trend in foreign listings in the U.S.

<sup>11</sup> In Table A3 of the Appendix we present further evidence to show that this declining trend is robust to inclusion of inactive listings, to restricting to listings from the top five home countries which supply the most foreign listings (Canada, China, the United Kingdom, Sweden, and France), to restricting to listings in the top five host countries with the most foreign listings (the U.S., the United Kingdom, Germany, Hong Kong, and Singapore), and to excluding listings from China and in Hong Kong.

U.S. in our sample is 28 percent.<sup>12</sup> The means of the remaining variables are in line with prior studies on cross-listing (Chen et al., 2015; Liao et al., 2022). Table A4 of the Appendix presents the Pearson correlation coefficients for the major variables.

#### **4.2 The Effect of PCAOB on U.S. Listing Propensity**

We report the regression outcomes for equation (1) in Table 4, progressively introducing company-, industry-, and country-level control variables while employing various fixed effect structures from column (1) to column (5). Across all columns, the coefficient on *Treated\_Post* is consistently negative and significant. Thus, in comparison to companies from countries that are not exposed to PCAOB inspections, companies from exposed countries exhibit a reduction in their propensities to list in the U.S. of between 2.3 (column 5) and 4.7 (column 4) percentage points after exposure, representing an economically significant decrease of between 8 and 16 percent relative to the average U.S. listing propensity in our sample of 28 percent.

We further employ a dynamic DID by adding individual event-time indicator variables for each pre- and post-year to the model presented in column (5) of Table 4 (i.e., the specification with the full set of controls and both year-cohort and firm-cohort fixed effects).<sup>13</sup> The individual event-time indicator variable coefficients capture the dynamics of companies' propensity to list in the U.S. before and after PCAOB treatment. Figure 2 graphs these coefficients. The evidence is consistent with a pre-event parallel trends and shows a phased-in effect of the PCAOB treatment that persists for up to seven years after the treatment.

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<sup>12</sup> This is lower than the actual propensity of non-U.S. firms to seek listing in the U.S. (see Table 2) because our company-year sample consists of stacked-cohorts of observations.

<sup>13</sup> We use year 1 (the year after the treatment year) as the reference year because we want to have a longer pre-period to ensure that there is no pre-trend. Dynamic DID results remain the same for using year -1 (the year before the treatment year) as the reference year, or including year 0 observations and using year -1/0 as the reference year.

To shed some light on first foreign listings, we use a country-year sample (sample construction detailed in Panel C of Table A2) which allows us to capture all foreign listings of countries in our sample. We re-estimate equation (1) using this country-year sample and tabulate the results in Panel A of Table 5. The values for control variables are averaged across company-years within the corresponding country-years. For parsimony of presentation going forward we omit the tabulation of coefficients on all the control variables. We continue to find significantly negative coefficients on the *Treated\_Post* variable using different control variables.

To address potential concerns related to the use of a linear probability model, we replicate the analysis using Logit regressions and tabulate the results in Panel B of Table 5. Panel C of Table 5 presents the results using a sample excluding China and Hong Kong companies and/or excluding the 2022 cohort (only China is treated in this cohort). Panel D of Table 5 presents the results using a sample excluding the years associated with the global financial crisis (i.e., 2007-2009). Our findings are robust to all these alternative specifications. Finally, Panel E of Table 5 presents results using different event windows for the stacked DID. Our results continue to be robust, and the results show that the significance level of the coefficient on *Treated\_Post* increases as the window size expands, consistent with the graphical evidence of a phased-in but persistent effect presented in Figure 2. Taken together, our results are robust to alternative samples and alternative models used to estimate the deterrent effect.

### **4.3 Foreign Listing Forgoing or Shifting?**

Do companies deterred by PCAOB inspections forgo foreign listings altogether or do they simply shift away from listing in the U.S.? To examine this question, in Column (1) of Table 6, we first substitute the dependent variable in equation (1) with *FL\_UK*, an indicator that is analogous to *FL\_US* but captures foreign listings in the United Kingdom (the second largest host

country for foreign listings and arguably the most comparable market to the U.S.). This analysis also serves as a placebo test which can help alleviate concerns that our treatment events correspond with a general decrease in foreign companies' propensity to list their securities in developed markets. We find no evidence that PCAOB inspection access is associated with a change in the propensity of foreign companies to list in the United Kingdom. In Column (2) of Table 6 we change the dependent variable to *FL\_Non-US\_Top5*, an indicator variable set equal to one for company-years foreign listed in any of the top five host markets other than the U.S. (i.e., the United Kingdom, Germany, Hong Kong, and Singapore). Again, we find no evidence that companies' propensity to list in these markets changes after the PCAOB gains access to their home countries. In Column (3) of Table 6 we change the dependent variable to *FL\_Non-US\_Top10*, an indicator variable set equal to one for company-years foreign listed in any of the top ten host markets other than the U.S. (i.e., the top 5 plus Australia, Canada, France, Norway, and Austria), and find evidence that companies' propensity to list in these markets *increases* after the PCAOB gains access to their home countries, consistent with some companies shifting their listings to non-U.S. markets to avoid PCAOB inspections. Finally, in Column (4) of Table 6, we change the dependent variable to *FL\_Non-US\_Market*, an indicator variable set equal to one for company-years foreign listed in any foreign market other than the U.S. and find similar results as in Column (3). When compared to the decrease in U.S. listing propensity, the results suggest that a substantial proportion – 74 percent of the decrease (3.5 from column (4) of Table 6 out of 4.7 percentage points from column (4) of Table 4) – is redirected to other (small and mid-sized) foreign markets.

#### **4.4 Which Companies Are Deterred?**

We expect that companies may be more likely to forgo listing in the U.S. if they (or their home-country governments) fear PCAOB inspections will provide the U.S. government with

access to sensitive or proprietary information. We proxy for these concerns in two ways. First, we define *HighProprietaryCost* (*LowProprietaryCost*) as an indicator variable equal to one if the firm is (is not) in an industry that foreign governments are likely to consider sensitive and/or important for national security (e.g., aerospace and defense, pharmaceuticals, biotechnology, etc.).<sup>14</sup> Second, because foreign governments that have an adversarial relationship with the U.S. are likely to be particularly sensitive to a U.S. regulator gaining access to their companies' internal records, we define *HighPoliticalTension* (*LowPoliticalTension*) as an indicator equal to one if the political tension between a sample firm's home country and the U.S. is greater than or equal to (smaller than) the median of the political tension between all other countries and the U.S. Political tension is measured by geopolitical distance, a proxy pioneered by Bailey et al. (2017), and is based on the voting records at the United Nations General Assembly (Nana and Ouedraogo, 2023). We estimate separate treatment effects across these groups by interacting the partitioning variables with *Treated\_Post*. The results are reported in Panel A of Table 7. Using both measures, we find that companies for which PCAOB inspections are likely to impose the highest proprietary/political costs are the most likely to forgo listing in the U.S. after the PCAOB gains access to their home countries.

We also expect that foreign companies for whom PCAOB inspections impose higher compliance costs are more likely to forgo listing in the U.S. after the PCAOB gains inspection privileges in their home country. We capture the compliance costs imposed by PCAOB inspections in two ways. First, we define *HighReportingCost* (*LowReportingCost*) as an indicator variable

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<sup>14</sup> We classify industries as politically sensitive manually based on our best judgment, and we acknowledge that there is significant subjectivity involved. Our goal when selecting the set of sensitive industries used to define *HighProprietaryCost*/ *LowProprietaryCost* is to identify roughly half of our sample that is substantially more politically sensitive than the other half. We also acknowledge that there is significant variation within the resulting subsamples, and that the sensitivity of any given industry (e.g., semiconductors) will vary over time. See Appendix Table A1 for the full set of industries for which *HighProprietaryCost* = 1.

equal to one for companies that meet (do not meet) the eligibility thresholds to be considered either small reporting companies (SRCs) or emerging growth companies (EGCs). SRCs and EGCs are granted reduced disclosure requirements under U.S. securities regulations, including a waiver on the requirement to receive an ICFR audit. Second, we define *WithPOB* (*WithoutPOB*) as an indicator variable equal to one for companies that have (do not have) a POB in their home country, as auditors in countries without a POB (public audit oversight board) face a larger increase in oversight when exposed to PCAOB inspections.<sup>15</sup> We estimate separate treatment effects across these groups by interacting the partitioning variables with *Treated\_Post*. The results are reported in Panel B of Table 7. Using both measures, we find that companies for which PCAOB inspections are likely to impose the highest compliance costs are the most likely to forgo listing in the U.S. after the PCAOB gains access to their home countries.

#### 4.5 Other Cross-sectional Tests

There are two ways that PCAOB international inspections can affect the number of foreign companies that choose to list their securities in the U.S.: (1) inspections can decrease the number of new listings from foreign companies and (2) inspections can increase delistings by companies already listed in the U.S. We test whether one, the other, or both mechanisms are responsible for our primary findings by defining the variable *USListed* (*NotUSListed*) as one if a company has (has not) already listed in the U.S. in the treatment year. We then interact these partitioning variables with *Treated\_Post*. The results are presented in Column (1) of Table 8 and show that our primary findings are driven by delistings from companies already listed in the U.S.

We also test whether our findings are stronger in countries that lack alternative sources of U.S. capital. Specifically, we define the variable *HighUSInvest* (*LowUSInvest*) as one for

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<sup>15</sup> We follow Carson et al. (2021) in defining when and whether a country establishes its own POB. See their paper for more details.

companies located in a country that has above-median (below-median) cross-border investment from the U.S. We then interact these partitioning variables with *Treated\_Post*. The results are presented in Column (2) of Table 8 and show that the deterrent effect is mitigated in countries that receive relatively little cross-border investment from the U.S., thus lacking alternative access to U.S. capital.

#### **4.6 PCAOB International Inspections and Company Quality**

Lastly, we conduct a series of tests to examine whether PCAOB international inspections primarily deter low quality or poorly performing foreign companies from maintaining listings of their securities in the U.S. market. Because we do not observe which foreign companies would have (remained) listed in the U.S. absent PCAOB inspection access to their home countries, we cannot examine this question directly. However, if PCAOB inspections primarily deter companies with low financial reporting quality or poor performance, then the average financial reporting quality and performance of the companies listed in the U.S. from a country should increase after that country grants the PCAOB inspection privileges.

We examine several firm characteristics to determine whether foreign companies that maintain active U.S. listings after the PCAOB gains access to their home country are different from those that did so before the PCAOB gains access to their home country. Specifically, we test for differences in foreign companies' (1) propensity to restate their financial statements (*RestateFlag*), (2) absolute level of abnormal accruals (*AbsAccruals*), (3) signed level of abnormal accruals (*SignedAccruals*), (4) return on assets (*ROA*), and (5) sales growth (*SalesGrowth*) in columns (1) through (5) of Table 9. The sample for these tests is limited to observations with an active U.S. listing. The evidence is mixed. Regarding financial reporting quality, we find that foreign companies that maintain their U.S. listings after the PCAOB gains inspection privileges in



their home countries have significantly lower signed abnormal accruals (column 3). However, we find no evidence that these companies have lower absolute abnormal accruals (column 2) or lower propensities to restate their financial statements (column 1). In terms of performance, we find that these companies exhibit faster growth (column 5), but there is no evidence indicating that they achieve a higher return on assets (column 4).

## **5. CONCLUSION**

Foreign listings play a crucial role in facilitating cross-border capital flows (Karolyi, 2006). A country that can attract foreign companies to its capital market makes it possible for local investors to partake in global economic growth. Our study reveals a startling trend: the attractiveness of the U.S. capital market to non-U.S. companies has significantly decreased over the past two decades.

We examine whether the PCAOB's international inspections contribute to this declining trend. Specifically, we find that companies from inspected countries experience a greater decline in their likelihood to list in the U.S. compared to companies from countries yet to be exposed to inspections. Our analysis further reveals that the deterred companies, rather than reducing their need for international presence, redirect their foreign listings to markets other than the U.S. We also explore which types of companies are more affected by these inspections. We find evidence that foreign companies in industries likely considered strategically important to their governments and in countries experiencing high levels of political tension with the U.S. are more likely to be deterred by PCAOB inspections. Consistent with the notion that companies facing more compliance costs are more likely to forgo U.S. listings, we also find that the deterrent effect

concentrates among non-SRC and non-EGC companies and among companies from countries without PCAOB-like oversight bodies.

Our study presents the first large-sample empirical evidence of a prolonged decline in the attractiveness of the U.S. capital markets to foreign companies. Our paper is also the first study on the impact of PCAOB inspections on international capital flows. We extend the PCAOB literature by examining a hereto unexamined consequence of PCAOB international oversight: deterring foreign companies from listing in the U.S. Our paper should be of interest to both researchers and U.S. regulators and opens avenues for further research on the important role of U.S. regulatory oversight on the international capital market.

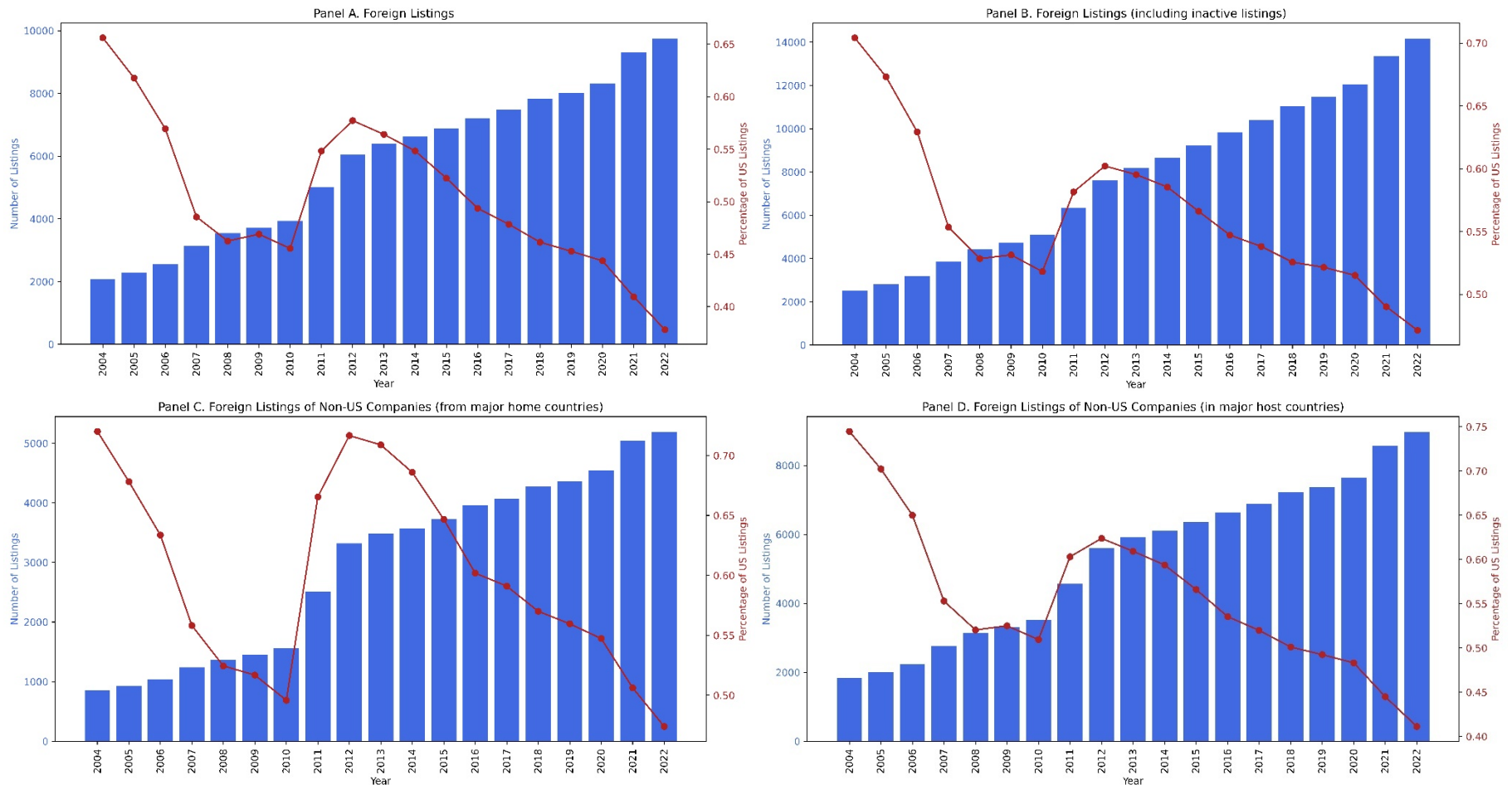
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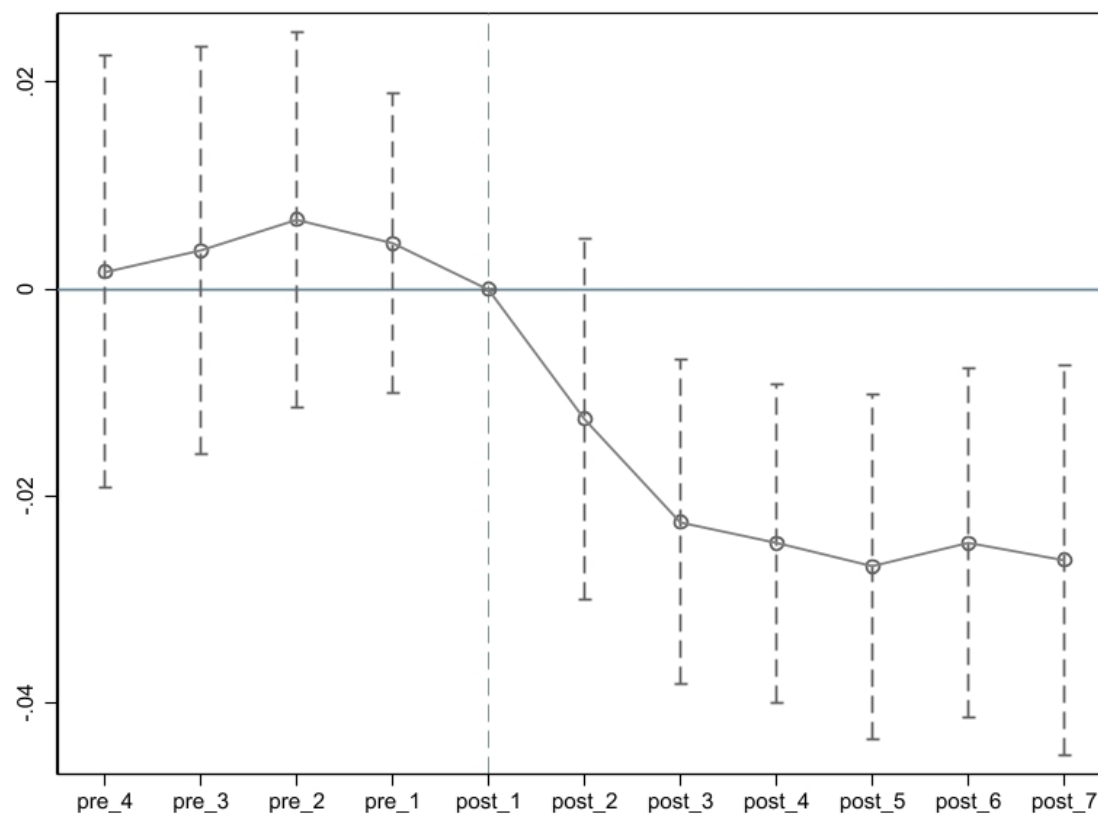
**Figure 1. Foreign Listings of Non-U.S. Companies Over Time – Listing Level Trends**

**Notes:** These figures depict the temporal trend of global foreign listings (blue bars) and the corresponding percentage of these listings in the U.S. (red dots). The construction of the foreign listing sample is detailed in Panel A of Table A2. Here, in Panel A, we count the number of active foreign listings at each year-end and determine the proportion of those listed in the U.S. In Panel B, we encompass inactive listings. In Panel C, we concentrate on active listings originating from major home countries, namely Canada, China, the United Kingdom, Sweden, and France – the top five home countries that supply most foreign listings from 2004 to 2022. In Panel D, we focus on active listings in major host markets, namely the U.S., the United Kingdom, Germany, Hong Kong, and Singapore – the top five host markets with the highest foreign listing volume between 2004 and 2022.



**Figure 2. Testing Pre-event Parallel Trend using Dynamic Difference-in-Differences Specification**

**Notes:** This plot visualizes the coefficients of a dynamic DID with a linear probability model:  $FL_{US_{c,i,t}} = \sum_{j=1}^4 \beta_j Pre_{c,i,j} + \sum_{k=2}^7 \beta_k Post_{c,i,k} + \gamma' Controls + \alpha_{c,t} + \zeta_{c,i} + \epsilon_{c,i,t}$  where  $Pre_{c,i,j}$  is an indicator variable that equals one if firm  $i$  in cohort  $c$  is from a PCAOB treated country and the observation is  $j$  year(s) before the treatment,  $Post_{c,i,k}$  is an indicator variable that equals one if firm  $i$  in cohort  $c$  is from a PCAOB treated country and the observation is  $k$  year(s) after the treatment,  $\alpha_{c,t}$  denotes year-cohort fixed effects, and  $\zeta_{c,i}$  denotes firm-cohort fixed effects. Controls variables are as defined in equation (1). Year 0 (treatment year) observations have been dropped, and the indicator for year 1 has been omitted as it is the reference year. Results are robust to keeping year 0 observations and/or using year  $-1/0$  as the reference year. The coefficients for  $Pre_{c,i,j}$  and  $Post_{c,i,k}$  capture the dynamics of firms' propensity to list in the U.S. following PCAOB treatment. They are plotted below, along with their 95% confidence intervals. We cluster standard errors by both year-cohort and firm-cohort.



**Table 1. PCAOB International Inspections and Cooperative Arrangements across Jurisdictions**

**Notes:** This table outlines the timelines for PCAOB treatments in various jurisdictions. The PCAOB treatment year is defined as the year when the PCAOB initiated an inspection of an auditor in a country (Inspection Start Year) or entered into a cooperative arrangement with the country's local audit regulator (Arrangement Year), whichever event occurred first. The PCAOB usually initiates inspections before entering into cooperative arrangements, except in Denmark, Italy, Luxembourg, Netherlands, and South Korea. The Inspection Start Year is extracted from the Audit Analytics - PCAOB Reports database, and the Arrangement Year is sourced from [the PCAOB's website](#). For Canada and South Korea, where the PCAOB's arrangement dates are undisclosed, we use 2005, the inception year of PCAOB international inspections, as the Arrangement Year.

<b>Jurisdiction</b>	<b>Inspection Start Year</b>	<b>Arrangement Year</b>	<b>Jurisdiction</b>	<b>Inspection Start Year</b>	<b>Arrangement Year</b>
Argentina	2006		Kazakhstan	2007	
Australia	2007	2007	Luxembourg	2016	2015
Austria	2018	2018	Malaysia	2010	
Bahamas	2016		Mexico	2006	
Belgium	2021	2021	Netherlands	2012	2011
Belize	2009		New Zealand	2007	
Bermuda	2007		Nicaragua	2013	
Bolivia	2009		Nigeria	2020	
Brazil	2006		Norway	2008	2011
Canada	2005	2005	Pakistan	2020	
Cayman Islands	2009		Panama	2007	
Chile	2005		Papua New Guinea	2009	
China	2022	2022	Peru	2007	
Colombia	2007		Philippines	2009	
Denmark	2015	2014	Russia	2008	
Finland	2013	2013	Singapore	2008	2008
France	2013	2013	South Africa	2008	
Germany	2012	2012	South Korea	2007	2005
Greece	2008	2015	Spain	2012	2012
Hong Kong	2007	2022	Sweden	2014	2014
Hungary	2015	2015	Switzerland	2011	2011
India	2008		Taiwan	2007	2011
Indonesia	2008		Thailand	2010	
Ireland	2008	2017	Turkey	2011	
Israel	2005	2011	Ukraine	2009	
Italy	2017	2016	United Arab Emirates	2009	2011
Jamaica	2015		United Kingdom	2005	2011
Japan	2006	2011			

**Table 2. Foreign Listings of Non-U.S. Companies Over Time – Security Count, Dollar Magnitude, and Firm Level Trends**

**Notes:** This is the main table for the U.S. listing propensity decline phenomenon. Specifically, columns (1) and (2) display the total count of active foreign-listed securities at the end of each year and the corresponding proportion of these securities that are listed in the U.S. Column (3) and (4) present the same information as column (1) and (2), respectively, but in terms of market capitalization (USD billions). For column (3) and (4), we convert the currencies to USD if the securities are listed in non-U.S. countries. Since we don't have exchange rates for all currencies in all sample years, column (3) only sums the market capitalization of firms that was able to be converted to USD. Therefore, this may underestimate column (3) but overstate column (4). However, this should not affect the time trend we observe. Columns (5) and (6) provide the average values across firms for *#FL\_Host Markets* and *FL\_US*, respectively. *#FL\_Host Markets* is the total number of unique foreign host countries where a sample firm's securities are actively listed and traded in in a given year. *FL\_US* is an indicator variable that equals one if any security of a sample firm is actively listed and traded in the U.S. in a given year, and zero otherwise.

Year	Counts and Market Capitalization (USD billions) of Foreign Listings and Corresponding % Foreign Listed in the U.S.				Firm-Year Averages of # of Foreign Listing Host Markets and Firm- Level Propensity of U.S. Listing	
	(1) # Foreign Listing	(2) % of # Foreign Listings in the U.S.	(3) Market Cap (USD billions) of Foreign Listings	(4) % Market Cap of Foreign Listings. in the U.S.	(5) # <i>FL_Host Markets</i> Per Firm Year	(6) <i>FL_US</i> (Indicator)
2004	2,076	66%	27,561	96%	1.03	69%
2005	2,279	62%	28,574	91%	1.03	65%
2006	2,550	57%	28,980	89%	1.04	60%
2007	3,139	49%	30,150	86%	1.08	50%
2008	3,544	46%	31,409	86%	1.12	51%
2009	3,712	47%	32,140	86%	1.13	52%
2010	3,935	46%	32,639	85%	1.15	51%
2011	5,018	55%	33,128	85%	1.14	57%
2012	6,050	58%	33,729	84%	1.13	61%
2013	6,386	56%	34,195	83%	1.13	60%
2014	6,619	55%	34,651	83%	1.13	59%
2015	6,888	52%	35,060	82%	1.13	57%
2016	7,203	49%	34,584	81%	1.13	56%
2017	7,482	48%	35,064	80%	1.14	54%
2018	7,837	46%	35,594	79%	1.14	52%
2019	8,012	45%	35,068	78%	1.14	52%
2020	8,320	44%	36,149	76%	1.14	51%
2021	9,315	41%	36,299	73%	1.14	46%
2022	9,752	38%	36,164	70%	1.16	46%



**Table 3. Summary Statistics**

**Notes:** This table reports firm-year level summary statistics for key variables. To mitigate the impact of outliers, all continuous variables are winsorized at the 1st and 99th percentiles. Please refer to Table A1 for variable definitions.

<b>Variable</b>	<b>Count</b>	<b>Mean</b>	<b>Std.</b>	<b>25%</b>	<b>Median</b>	<b>75%</b>
<i>FL_US</i>	82,118	0.28	0.45	0.00	0.00	1.00
<i>FL_GB</i>	82,118	0.22	0.41	0.00	0.00	0.00
<i>FL_Non-US Top5</i>	82,118	0.71	0.45	0.00	1.00	1.00
<i>FL_Non-US Top10</i>	82,118	0.75	0.43	1.00	1.00	1.00
<i>FL_Non-US Market</i>	82,118	0.79	0.41	1.00	1.00	1.00
<i>RelativeSize</i>	82,118	0.00	0.01	0.00	0.00	0.00
<i>ROA</i>	82,118	-0.01	0.22	-0.01	0.03	0.07
<i>Accruals</i>	82,118	-0.02	0.21	-0.10	-0.03	0.03
<i>AnalystFollowing</i>	82,118	1.31	1.20	0.00	1.10	2.40
<i>Big4Auditor</i>	82,118	0.67	0.47	0.00	1.00	1.00
<i>Institution</i>	82,118	0.07	0.19	0.00	0.00	0.00
<i>Insider</i>	82,118	0.06	0.16	0.00	0.00	0.00
<i>SalesGrowth</i>	82,118	0.17	0.57	-0.03	0.07	0.24
<i>CapitalExpenditure</i>	82,118	0.05	0.06	0.01	0.03	0.07
<i>Leverage</i>	82,118	0.48	0.27	0.28	0.48	0.64
<i>Interest</i>	82,118	0.05	0.18	0.00	0.01	0.03
<i>Cash</i>	82,118	0.21	0.19	0.07	0.15	0.29
<i>MTB</i>	82,118	2.73	5.61	0.50	1.25	2.77
<i>IndustryCompetition</i>	82,118	-0.28	0.30	-0.42	-0.15	-0.05
<i>HiTech</i>	82,118	0.14	0.35	0.00	0.00	0.00
<i>WorldCompetition</i>	82,118	-0.03	0.04	-0.03	-0.02	-0.01
<i>InvestorProtection</i>	82,118	16.83	3.25	15.00	15.00	18.00
<i>MarketDevelopment</i>	82,118	74.16	98.42	43.33	64.16	83.16
<i>StockLiquidity</i>	82,118	143.27	93.54	66.01	135.97	206.65
<i>Treated</i>	82,118	0.27	0.44	0.00	0.00	1.00
<i>Post</i>	82,118	0.76	0.43	1.00	1.00	1.00
<i>Treated Post</i>	82,118	0.18	0.39	0.00	0.00	0.00

**Table 4. Linear Probability Regressions –  
The Effect of PCAOB International Inspections on Firms' U.S. Listing Propensity**

**Notes:** This table presents the regression results for the effect of PCAOB international inspections on a firm's U.S. listing propensity. Columns (1)-(5) progressively introduce firm-, industry-, and country-level control variables, and employ different fixed effect structures. Detailed variable definitions can be found in Table A1. We apply two-way standard errors clustering at the firm-cohort and year-cohort levels for all columns. Results are robust to two-way clustering at the country-cohort and year-cohort levels as well. *t*-statistics are presented in parentheses. \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dependent Variable	(1) <i>FL US</i>	(2) <i>FL US</i>	(3) <i>FL US</i>	(4) <i>FL US</i>	(5) <i>FL US</i>
<i>Treated_Post</i>	-0.046*** (-5.571)	-0.041*** (-5.600)	-0.042*** (-5.635)	-0.047*** (-5.853)	-0.023*** (-3.741)
<i>RelativeSize</i>		7.353*** (15.952)	7.408*** (16.128)	7.417*** (16.150)	1.351*** (4.161)
<i>ROA</i>		-0.079*** (-6.969)	-0.078*** (-6.827)	-0.078*** (-6.842)	0.012*** (2.965)
<i>Accruals</i>		-0.065*** (-12.127)	-0.065*** (-12.072)	-0.065*** (-12.051)	0.003** (2.090)
<i>AnalystFollowing</i>		0.081*** (20.838)	0.080*** (20.668)	0.080*** (20.653)	0.024*** (9.923)
<i>Big4Auditor</i>		0.004 (0.594)	0.005 (0.721)	0.005 (0.728)	0.008*** (3.330)
<i>Institution</i>		0.439*** (15.066)	0.439*** (15.108)	0.439*** (15.090)	0.060*** (3.916)
<i>Insider</i>		-0.074*** (-3.502)	-0.074*** (-3.551)	-0.074*** (-3.552)	-0.051*** (-3.208)
<i>SalesGrowth</i>		0.015*** (5.614)	0.015*** (5.688)	0.015*** (5.676)	-0.002* (-1.878)
<i>CapitalExpenditure</i>		0.141*** (3.407)	0.149*** (3.586)	0.148*** (3.581)	0.003 (0.217)
<i>Leverage</i>		0.091*** (7.335)	0.093*** (7.454)	0.093*** (7.455)	0.006 (0.967)
<i>Interest</i>		0.014 (1.037)	0.014 (1.083)	0.014 (1.080)	0.021*** (2.820)
<i>Cash</i>		0.164*** (8.202)	0.162*** (8.118)	0.162*** (8.124)	-0.005 (-0.839)
<i>MTB</i>		0.003*** (6.411)	0.003*** (6.263)	0.003*** (6.268)	0.001** (2.540)
<i>IndustryCompetition</i>			0.054*** (2.764)	0.055*** (2.804)	-0.034*** (-3.726)
<i>HiTech</i>			0.024* (1.719)	0.024* (1.718)	0.155** (2.063)
<i>WorldCompetition</i>			-0.253** (-2.128)	-0.259** (-2.181)	0.222** (2.590)
<i>InvestorProtection</i>				0.005 (1.390)	0.001 (0.552)
<i>MarketDevelopment</i>				0.000 (0.239)	0.000 (1.356)
<i>StockLiquidity</i>				-0.000*** (-6.272)	-0.000*** (-3.534)
Year-Cohort FE	YES	YES	YES	YES	YES
Country-Cohort FE	YES	YES	YES	YES	NO
Industry-Cohort FE	YES	YES	YES	YES	NO
Firm-Cohort FE	NO	NO	NO	NO	YES
Observations	82,092	82,092	82,092	82,092	80,329
Adjusted R-squared	0.328	0.435	0.436	0.436	0.945

**Table 5. The Effect of PCAOB on U.S. Listing Propensity – Additional Tests**

**Notes:** This table reports additional tests on a firm's propensity to seek U.S. listing. All regressions include year-cohort, country-cohort, and industry-cohort fixed effects, and cluster standard errors at firm-cohort and year-cohort levels.  $P\_US$  in Panel A is the proportion of U.S. listings over all foreign listings from a home country a sample year. Detailed variable definitions can be found in Table A1. For control variables, All means we include all firm-, industry-, and country-level control variables. For Panel C we exclude Cohort 2022 because Cohort 2022 includes only one treated country – China. *t*-statistics are presented in parentheses. \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.

<b>Panel A. Country-year Sample (OLS)</b>				
Dependent Variable	(1) <i>P_US</i>	(2) <i>P_US</i>	(3) <i>P_US</i>	(4) <i>P_US</i>
<i>Treated_Post</i>	-0.029*** (-3.630)	-0.021** (-2.558)	-0.017** (-2.131)	-0.021*** (-2.674)
Control Variables	None	Firm	Firm, Industry	All
Year-, Country-, & Industry-Cohort FEs	YES	YES	YES	YES
Observations	6,630	6,630	6,630	6,630
Adjusted R-squared	0.892	0.903	0.906	0.907
<b>Panel B. Logit Model</b>				
Dependent Variable	(1) <i>FL_US</i>	(2) <i>FL_US</i>	(3) <i>FL_US</i>	(4) <i>FL_US</i>
<i>Treated_Post</i>	-0.312*** (-5.647)	-0.361*** (-6.060)	-0.369*** (-6.172)	-0.437*** (-6.874)
Control Variables	None	Firm	Firm, Industry	All
Year-, Country-, & Industry-Cohort FEs	YES	YES	YES	YES
Observations	78,076	78,076	78,076	78,076
Pseudo R-squared	0.173	0.322	0.324	0.325
<b>Panel C. Firm-years Excluding China (OLS)</b>				
Dependent Variable	(1) <i>FL_US</i>	(2) <i>FL_US</i>	(3) <i>FL_US</i>	
Sample	Excluding China & HK firms	Excluding Cohort 2022	Excluding China & HK firms and Cohort 2022	
<i>Treated_Post</i>	-0.050*** (-4.297)	-0.047*** (-5.856)	-0.050*** (-4.306)	
Control Variables	All	All	All	
Year-, Country-, & Industry-Cohort FEs	YES	YES	YES	
Observations	40,463	78,489	39,834	
Adjusted R-squared	0.596	0.442	0.595	

**Panel D. Firm-years Excluding Financial Crisis (2007-2009) (OLS)**

Dependent Variable Sample	(1) <i>FL_US</i> Excluding Crisis observations	(2) <i>FL_US</i> Excluding Crisis cohorts	(3) <i>FL_US</i> Excluding Crisis observations & cohorts
<i>Treated Post</i>	-0.041*** (-4.789)	-0.040*** (-4.417)	-0.030*** (-3.501)
Control Variables	All	All	All
Year-, Country-, & Industry-Cohort FEs	YES	YES	YES
Observations	71,468	63,798	56,005
Adjusted R-squared	0.426	0.447	0.436

**Panel E. Stacked DID Window Size (OLS)**

Dependent Variable Window Size	(1) <i>FL_US</i> [-3, +3]	(2) <i>FL_US</i> [-5, +5]	(3) <i>FL_US</i> [-7, +7]
<i>Treated Post</i>	-0.012*** (-2.982)	-0.029*** (-4.465)	-0.057*** (-6.096)
Control Variables	All	All	All
Year-, Country-, & Industry-Cohort FEs	YES	YES	YES
Observations	58,396	80,462	89,510
Adjusted R-squared	0.389	0.395	0.432

**Table 6. The Effect of PCAOB International Inspections on Foreign Listing Shifting**

**Notes:** This table presents the regression results for the effect of PCAOB international inspections on a companies' propensity to foreign list in: (1) the United Kingdom (*FL\_UK*), (2) the top five destination countries other than the U.S. (*FL\_Non-US\_Top5*), (3) the top ten destination countries other than the U.S. (*FL\_Non-US\_Top10*), and (4) any foreign market other than the U.S. (*FL\_Non-US\_Market*). The top ten foreign listing markets other than the U.S. refer to the United Kingdom, Germany, Hong Kong, Singapore, Australia, Canada, France, Norway, and Austria. For control variables, All means we include all firm-, industry-, and country-level control variables. Detailed variable definitions can be found in Table A1. We apply standard errors clustering at firm-cohort and year-cohort levels. *t*-statistics are presented in parentheses. \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dependent Variable	(1) <i>FL UK</i>	(2) <i>FL Non-US Top5</i>	(3) <i>FL Non-US Top10</i>	(4) <i>FL Non-US Market</i>
<i>Treated Post</i>	-0.030 (-1.496)	0.011 (1.234)	0.023*** (2.877)	0.035*** (4.691)
Control Variables	All	All	All	All
Year-, Country-, & Industry-Cohort FEs	YES	YES	YES	YES
Observations	82,092	82,092	82,092	82,092
Adjusted R-squared	0.649	0.436	0.421	0.462

**Table 7. The Effect Heterogeneity across Proprietary Costs and Compliance Costs**

**Notes:** This table presents the regression results for the effect of PCAOB international inspections on a firm's U.S. listing propensity across different groups of firms. In Panel A, to proxy for the proprietary costs that a firm would incur if it seeks listing in the U.S., we use two different groups of indicators: *HighProprietaryCost* (*LowProprietaryCost*) and *HighPoliticalTension* (*LowPoliticalTension*), coded as one if the company is (not) from a politically sensitive industry (e.g., aerospace and defense), and is from a home country and year characterized by high (low) political tension with the United States, respectively. In Panel B, to proxy for a firm's PCAOB-related compliance costs of U.S. listing, we use two groups of indicators: *LowReportingCost* (*HighReportingCost*), and *WithPOB* (*WithoutPOB*), coded as one if the company did (not) qualify as an SRC or EGC, and is from a country with (without) public audit oversight bodies (POB), respectively. For control variables, All means we include all firm-, industry-, and country-level control variables. Indicators are fully interacted with control variables. Detailed variable definitions can be found in Table A1. We use standard errors clustering at firm-cohort and year-cohort levels and present *t*-statistics in parentheses. \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.

**Panel A. PCAOB Proprietary Costs**

Dependent Variable	(1) <i>FL US</i>	(2) <i>FL US</i>
<i>Treated_Post</i> * <i>HighProprietaryCost</i>	-0.074*** (-5.637)	
<i>Treated_Post</i> * <i>LowProprietaryCost</i>	-0.012 (-1.058)	
<i>Treated_Post</i> * <i>HighPoliticalTension</i>		-0.041*** (-5.761)
<i>Treated_Post</i> * <i>LowPoliticalTension</i>		-0.011 (-0.334)
Two-way Interaction Terms	Included	Included
Control Variables	All	All
Year-, Country-, & Industry-Cohort FEs	YES	YES
Observations	82,092	82,092
Adjusted R-squared	0.442	0.438

**Panel B. PCAOB Compliance Costs**

Dependent Variable	(1) <i>FL US</i>	(2) <i>FL US</i>
<i>Treated_Post</i> * <i>LowReportingCost</i>	-0.024* (-1.932)	
<i>Treated_Post</i> * <i>HighReportingCost</i>	-0.062*** (-4.083)	
<i>Treated_Post</i> * <i>WithPOB</i>		-0.003 (-0.151)
<i>Treated_Post</i> * <i>WithoutPOB</i>		-0.086*** (-7.114)
Two-way Interaction Terms	Included	Included
Control Variables	All	All
Year-, Country-, & Industry-Cohort FEs	YES	YES
Observations	82,092	82,092
Adjusted R-squared	0.464	0.444

**Table 8. Increase in Delistings versus Decrease in New Listings and High versus Low U.S. Investment**

**Notes:** This table presents the regression results testing whether PCAOB international inspections affect the propensity of foreign companies already listed in the U.S. (*USListed*) to delist differently than the propensity of unlisted foreign companies (*NotUSListed*) to issue new securities in the U.S. The table also presents regression results testing whether the PCAOB deterrent effect is concentrated among companies in countries that receive more (*HighUSInvest*) or less (*LowUSInvest*) U.S. capital flows. For control variables, All means we include all firm-, industry-, and country-level control variables. Indicators are fully interacted with control variables. Detailed variable definitions can be found in Table A1. We use standard errors clustering at firm-cohort and year-cohort levels and present *t*-statistics in parentheses. \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dependent Variable	(1) <i>FL US</i>	(2) <i>FL US</i>
<i>Treated_Post</i> * <i>USListed</i>	-0.102*** (-5.377)	
<i>Treated_Post</i> * <i>NotUSListed</i>	0.003 (0.487)	
<i>Treated_Post</i> * <i>HighUSInvest</i>		-0.044*** (-5.348)
<i>Treated_Post</i> * <i>LowUSInvest</i>		-0.036 (-0.281)
Two-way Interaction Terms	Included	Included
Control Variables	All	All
Year-, Country-, & Industry FEs	YES	YES
Observations	82,092	82,092
Adjusted R-squared	0.925	0.446

**Table 9. Firm Quality Comparison before and after PCAOB International Inspections**

**Notes:** This table presents the regression results for the effect of PCAOB international inspections on the quality of firms remaining listed in the U.S. (US\_FL=1). To proxy for firm quality, we use (1) propensity to restate their financial statements (*RestateFlag*), (2) absolute level of abnormal accruals (*AbsAccruals*), (3) signed level of abnormal accruals (*SignedAccruals*), (4) return on assets (*ROA*), and (5) sales growth (*SalesGrowth*) as the dependent variable. For control variables, All means we include all firm-, industry-, and country-level control variables. Detailed variable definitions can be found in Table A1. We use standard errors clustering at firm-cohort and year-cohort levels and present t-statistics in parentheses. \*, \*\*, and \*\*\* denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Dependent Variable	(1) <i>RestateFlag</i>	(2) <i>AbsAccruals</i>	(3) <i>SignedAccruals</i>	(4) <i>ROA</i>	(5) <i>SalesGrowth</i>
<i>Treated_Post</i>	0.000 (0.074)	-0.007 (-1.237)	-0.015*** (-3.601)	0.002 (0.256)	0.076*** (4.399)
Control Variables	All	All	All	All	All
Year-, Country-, & Industry FEs	YES	YES	YES	YES	YES
Observations	23,183	23,183	23,183	23,183	23,183
Adjusted R-squared	0.021	0.237	0.057	0.352	0.090



**Table A1. Variable Definitions**

**Notes:** This table provides the definitions of variables used in this study.

Variable	Definition	Source
<b>Variables of Interest</b>		
# <i>FL_Host Markets</i>	The total number of unique foreign countries where a sample firm's securities are actively listed and traded in a given year.	Compustat
<i>FL_US</i>	An indicator variable that equals one if any security of a sample firm is actively listed and traded in the U.S. in a given year, and zero otherwise.	Compustat
<i>FL_UK</i>	An indicator variable that equals one if any security of a sample firm is actively listed and traded in the United Kingdom in a given year, and zero otherwise.	Compustat
<i>FL_Non-US Top5</i>	An indicator variable that equals one if any security of a sample firm is actively listed and traded in a top 5 foreign market other than the U.S., and zero otherwise. They are the four markets that have hosted the highest number of foreign listings between 2004 and 2022 other than the U.S.: The United Kingdom, Germany, Hong Kong, Singapore.	Compustat
<i>FL_Non-US Top10</i>	An indicator variable that equals one if any security of a sample firm is actively listed and traded in a top 10 foreign market other than the U.S., and zero otherwise. They are the nine markets that have hosted the highest number of foreign listings between 2004 and 2022 other than the U.S.: The United Kingdom, Germany, Hong Kong, Singapore, Australia, Canada, France, Norway, and Austria.	Compustat
<i>FL_Non-US Market</i>	An indicator variable that equals one if any security of a sample firm is actively listed and traded in a foreign market other than the U.S., and zero otherwise.	Compustat
<i>Treated_Post</i>	An indicator variable that equals one if a sample firm's home country has already been inspected by the PCAOB or has already entered into a cooperative arrangement with the PCAOB in a given year, and zero otherwise.	Audit Analytics
<i>P_US</i>	The proportion of U.S. listings over all foreign listings from a home country in a given year.	Compustat
<b>Firm-level Variables</b>		
<i>RelativeSize</i>	The market value of a sample firm's shares on the first exchange it listed on divided by the total capitalization of that equity market in a given year.	Compustat
<i>ROA</i>	The ratio of a sample firm's net income to total assets in a given year.	Compustat
<i>Accruals</i>	A measure of firm-year-level financial opacity measured by the difference between total and predicted accruals following Francis and Wang (2008). Predicted accruals is equal to $\{[Sales_t'(CurrentAccruals_{t-1}/Sales_{t-1})] - [GrossPPE_t'(Depreciation_{t-1}/GrossPPE_{t-1})]\} / TotalAssets_{t-1}$ . Total accruals is equal to $(EarningsBeforeExtraordinaryItems' OperatingCashFlows) / TotalAssets_{t-1}$ . See Francis and Wang (2008, p. 168–169).	Compustat
<i>AnalystFollowing</i>	The natural logarithm of one plus total number of analysts following a sample firm in a given year.	I/B/E/S
<i>Big4Auditor</i>	An indicator variable that equals one if the auditor of a sample firm in a given year is a Big 4 auditor, and zero otherwise.	Compustat
<i>Institution</i>	The percentage of a sample firm's shares held by all types of institutional investors at the end of a given year.	FactSet

<i>Insider</i>	The percentage of a sample firm's shares held by officers and directors at the end of a given year.	FactSet
<i>SalesGrowth</i>	A sample firm's annual growth rate of total sales from the prior year.	Compustat
<i>CapitalExpenditure</i>	The ratio of a sample firm's total capital expenditures to total assets in a given year.	Compustat
<i>Leverage</i>	The ratio of a sample firm's total debt to total assets in a given year.	Compustat
<i>Interest</i>	The ratio of a sample firm's total interest to total sales in a given year.	Compustat
<i>Cash</i>	The ratio of a sample firm's sum of cash and short-term investments to total assets in a given year.	Compustat
<i>MTB</i>	A sample firm's market value of equity to book value of equity ratio in a given year.	Compustat

#### **Industry-level Variables**

<i>IndustryCompetition</i>	A measure of industry competition within a country in a given year, which is defined as the Herfindahl index $\times (-1)$ , and the Herfindahl index is calculated as the sum of squares of fractional market shares of all firms within each two-digit SIC industry for a country during a given year.	Compustat
<i>HiTech</i>	An indicator variable that equals one if a sample firm is in a high-tech industry (SIC 2833-2836, 8731-8734, 7371-7379, 3570-3577, and 3600-3674), and zero otherwise.	Compustat
<i>WorldCompetition</i>	A measure of global industry competition in a given year, which is defined similarly as the <i>IndustryCompetition</i> , but calculated using the market shares of all firms within each two-digit SIC industry of all countries covered in our study during a given year.	Compustat

#### **Country-level Variables**

<i>InvestorProtection</i>	An index on strength of investor protection (0–10) for a country in a given year, from “Doing Business Indicators” by the World Bank.	World Bank
<i>MarketDevelopment</i>	Market capitalization of listed domestic companies as a percentage of GDP for a country in a given year, from “World Development Indicators” by the World Bank.	World Bank
<i>StockLiquidity</i>	Domestic shares traded divided by their market capitalization for a country in a given year, from “World Development Indicators” by the World Bank.	World Bank

#### **Cross-sectional Analysis Variables**

<i>LowReportingCost</i> ( <i>HighReportingCost</i> )	An indicator variable that equals one if a sample firm is (is not) a low-reporting-cost company during the cohort period, and zero otherwise. A firm is considered as a low-reporting-cost company if it meets the eligibility thresholds of small reporting company (SRC) or emerging growth company (EGC). The SRC eligibility requires the market size less than \$25M before 2008, less than \$75M during 2008 to 2018, or less than \$250M or less than \$700M but with revenues less than \$100M after 2018. The EGC eligibility requires the revenues less than \$1B during 2012 to 2016, less than \$1.07B during 2017 to 2021, or less than \$1.235B after 2022.	Compustat, CRSP
<i>WithPOB</i> ( <i>Without POB</i> )	An indicator variable that equals one if a sample firm is from a country that has already (has not) established its public audit oversight body (POB) before the firm's treatment year.	Carson et al. (2021)
<i>HighProprietaryCost</i> ( <i>LowProprietaryCost</i> )	An indicator variable that equals one if a sample firm is (is not) from the following industries according to their SIC: Computer Hardware and Software (3570-3579, 7370-7379), Telecommunications (4810-4849), Semiconductors (3674), Aerospace and Defense (3720-3729), Pharmaceuticals and Biotechnology (2830-2839), Advanced Manufacturing and Electrical Equipment (3500-3599, 3600-3699),	Compustat

	Chemicals (2800-2899), Energy (4900-4999), Financial Sectors (6000-6799), Medical Devices and Equipment (3840-3849), Transportation and Logistics (4000-4799), Environmental Services and Technologies (4950-4959), Professional, Scientific, and Technical Services (8700-8799), Communication Services (4800-4899), Agriculture (0100-0999), Construction (1500-1799), Retail Trade (5200-5999), and Real Estate (6500-6599).	
<i>HighPoliticalTension</i> <i>(LowPoliticalTension)</i>	An indicator variable that equals one if the political tension between a sample firm's home country and the U.S. is greater than or equal to (smaller than) the median of the political tension between all other countries and the U.S. during the cohort period, and zero otherwise. Political tension is measured by geopolitical distance, constructed in Bailey et al. (2017). It is based on the voting records at the United Nations General Assembly and captures the absolute magnitude of the discrepancy between the inferred vote-specific preference parameters (Nana and Ouedraogo, 2023).	Bailey et al. (2017), Nana and Ouedraogo (2023)
<i>USListed</i> <i>(NotUSListed)</i>	An indicator variable that equals one if a sample firm has already (has not yet) been listed in the U.S. in the treatment year, and zero otherwise.	Compustat
<i>HighUSInvest</i> <i>(LowUSInvest)</i>	An indicator variable that equals one if a sample firm is from a country that has above-(below-)median cross-border investment from the U.S. during the cohort period. The investment from the U.S. in a country is from "Assets, Total Investment" by the International Monetary Fund, Coordinated Portfolio Investment Survey.	International Monetary Fund

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**Table A2. Sample Construction Procedure**

**Notes:** This table outlines the procedure for constructing the listing and firm-/country-year samples of foreign listings for non-U.S. companies. Panel A explains the selection process of foreign listings from Compustat North America and Global - Security Monthly databases. Panels B and C explain the aggregation of foreign listings at the firm- and country-year levels, respectively. Each company/country enters the firm-/country-year sample in 2004 (or its initial active foreign listing year, whichever is later) and exits in 2022 (or when its last active foreign listed security ceases, whichever is earlier). Next, we merge the firm-/country-year sample with Compustat North America and Global - Fundamentals Annual databases, FactSet, I/B/E/S, and World Bank Indicators for control variables, and with Audit Analytics - PCAOB Reports database for PCAOB treatment timing. Observations with missing control variables are excluded. To mitigate potential bias from time-varying treatment effects, we convert the firm-/country-year sample to their corresponding stacked cohort sample with an event window of  $[-4, 7]$ , covering four years before and seven years after each PCAOB treatment year, where treatment year (year 0) has been dropped. It is important to note that the final row of Panel B/C shows an increase in the count of firm-/country-year observations. This occurs due to the construction of stacked cohort samples, where observations may be reused in the control group for different cohorts if the companies have never or not yet been treated.

<b>Panel A. Foreign Listing Sample (used for descriptive evidence on trend)</b>	<b># Listing</b>	<b># Company</b>
Select the foreign listings of non-U.S. companies before 2022-12-31	16,992	12,436
After: drop listings of companies in financial industry	16,149	11,821
After: drop listings of securities other than common stocks	15,769	11,728
After: drop listings occurred during companies' listing in the U.S.	14,170	11,728
<b>Panel B. Firm-year Sample (used in main stacked-cohort DID analysis)</b>	<b># Firm-year</b>	<b># Company</b>
Start with the foreign listing sample in Panel A	-	11,728
After: aggregate and drop observations outside sample period	96,995	10,708
After: drop observations of firms with foreign listing gap years	96,175	10,644
After: drop observations of firms that did not survive to the end of our sample period	74,486	7,588
After: drop observations with missing control variables	56,530	5,816
After: construct stacked cohort sample with event window $[-4, 7]$	82,118	4,398
<b>Panel C. Country-year Sample (used to supplement the firm-year DID analysis)</b>	<b># Country-year</b>	<b># Country</b>
Start with the foreign listing sample in Panel A	-	124
After: aggregate and drop observations outside sample period	2,034	121
After: drop observations of countries with foreign listing gap years	1,989	118
After: drop observations with missing control variables	1,649	99
After: construct stacked cohort sample with event window $[-4, 7]$	6,645	99

**Table A3. Proportion of Foreign Listings in the U.S. Over Time – Different Listing Samples**

**Notes:** This table offers different listing sample definitions to demonstrate the robustness of the evidence on the decreasing proportions of foreign listings in the U.S. Column (1) includes inactive listings, meaning we do not drop a security from the sample if it gets delisted. Column (2) is based on listings from major home countries, namely Canada, China, the United Kingdom, Sweden, and France. These top five home countries supply most foreign listings from 2004 to 2022. Column (3) is based on listings on major host markets, namely the U.S., the United Kingdom, Germany, Hong Kong, and Singapore. These top five host markets have the highest foreign listing volume between 2004 and 2022. In Column (4) we exclude the listings from Mainland China and the listings on Hong Kong exchanges.

<b>Year</b>	<b>(1) Including Inactive Listings</b>	<b>(2) Listings from Major Homes</b>	<b>(3) Listings on Major Hosts</b>	<b>(4) Listings excluding CN/HK</b>
2004	70%	72%	74%	70%
2005	67%	68%	70%	67%
2006	63%	63%	65%	62%
2007	55%	56%	55%	52%
2008	53%	52%	52%	50%
2009	53%	52%	53%	51%
2010	52%	50%	51%	49%
2011	58%	67%	60%	60%
2012	60%	72%	62%	62%
2013	60%	71%	61%	61%
2014	59%	69%	59%	60%
2015	57%	65%	57%	58%
2016	55%	60%	54%	57%
2017	54%	59%	52%	55%
2018	53%	57%	50%	54%
2019	52%	56%	49%	53%
2020	52%	55%	48%	53%
2021	49%	51%	44%	51%
2022	47%	47%	41%	48%

**Table A4. Pearson Correlation Matrix**

**Notes:** This table reports the Pearson correlation matrix for the key variables. Significance levels are denoted by \*\*\*, \*\*, and \*, representing correlations significant at the 1%, 5%, and 10% levels, respectively. Please refer to Table A1 for variable definitions.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) <i>FL_US</i>									
(2) <i>FL_GB</i>	-0.19***								
(3) <i>FL_Non-US Top5</i>	-0.69***	0.33***							
(4) <i>FL_Non-US Top10</i>	-0.71***	0.30***	0.91***						
(5) <i>FL_Non-US Market</i>	-0.81***	0.27***	0.81***	0.89***					
(6) <i>RelativeSize</i>	0.13***	0.18***	-0.01***	-0.03***	-0.01***				
(7) <i>ROA</i>	-0.03***	0.00	0.10***	0.05***	0.06***	0.10***			
(8) <i>Accruals</i>	-0.08***	0.03***	0.06***	0.06***	0.07***	-0.00	0.06***		
(9) <i>AnalystFollowing</i>	0.29***	0.18***	-0.01**	-0.07***	-0.13***	0.27***	0.22***	-0.05***	
(10) <i>Big4Auditor</i>	0.09***	0.05***	0.03***	-0.00	-0.05***	0.10***	0.16***	-0.02***	0.32***
(11) <i>Institution</i>	0.33***	-0.08***	-0.32***	-0.31***	-0.33***	0.02***	0.03***	-0.04***	0.22***
(12) <i>Insider</i>	0.03***	-0.14***	0.00	-0.01**	-0.03***	-0.09***	-0.00	-0.02***	0.02***
(13) <i>SalesGrowth</i>	0.02***	-0.05***	-0.03***	-0.03***	-0.03***	-0.02***	0.08***	0.10***	-0.04***
(14) <i>CapitalExpenditure</i>	0.10***	-0.06***	-0.10***	-0.06***	-0.08***	0.04***	0.05***	-0.03***	0.12***
(15) <i>Leverage</i>	0.05***	0.12***	0.04***	0.02***	-0.01**	0.06***	-0.14***	-0.04***	0.19***
(16) <i>Interest</i>	0.01***	-0.01**	-0.03***	-0.00	-0.01**	-0.04***	-0.20***	-0.01*	-0.08***
(17) <i>Cash</i>	0.03***	-0.18***	-0.04***	-0.05***	-0.05***	-0.13***	-0.07***	0.02***	-0.20***
(18) <i>MTB</i>	0.08***	0.01***	-0.04***	-0.04***	-0.02***	0.08***	-0.02***	0.00	0.04***
(19) <i>IndustryCompetition</i>	-0.01*	-0.33***	0.09***	0.02***	-0.06***	-0.27***	0.04***	-0.02***	-0.04***
(20) <i>HiTech</i>	0.04***	-0.07***	-0.02***	-0.04***	-0.06***	-0.04***	-0.05***	-0.00	-0.03***
(21) <i>WorldCompetition</i>	-0.02***	0.04***	-0.00	-0.00	-0.01*	-0.04***	-0.00	-0.01	0.00
(22) <i>InvestorProtection</i>	0.24***	0.17***	-0.28***	-0.22***	-0.22***	0.10***	-0.11***	0.01	0.04***
(23) <i>MarketDevelopment</i>	0.10***	-0.07***	-0.12***	-0.11***	-0.12***	-0.05***	-0.02***	-0.00	-0.01
(24) <i>StockLiquidity</i>	-0.14***	-0.33***	0.23***	0.17***	0.11***	-0.21***	0.04***	-0.01***	-0.12***

Table A4. Pearson Correlation Matrix (continued)

<i>Continue</i>	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
(10) <i>Big4Auditor</i>										
(11) <i>Institution</i>	0.09***									
(12) <i>Insider</i>	0.02***	0.18***								
(13) <i>SalesGrowth</i>	0.03***	-0.00	0.02***							
(14) <i>CapitalExpenditure</i>	0.05***	0.11***	0.04***	0.09***						
(15) <i>Leverage</i>	0.08***	0.05***	0.02***	-0.04***	-0.03***					
(16) <i>Interest</i>	-0.05***	-0.00	0.01	-0.02***	0.04***	0.16***				
(17) <i>Cash</i>	0.05***	-0.07***	0.01***	0.09***	-0.16***	-0.35***	-0.03***			
(18) <i>MTB</i>	0.02***	0.01***	-0.04***	0.06***	0.02***	-0.03***	-0.03***	0.13***		
(19) <i>IndustryCompetition</i>	-0.01***	-0.10***	0.09***	0.01***	-0.04***	-0.08***	-0.03***	0.17***	-0.07***	
(20) <i>HiTech</i>	-0.06***	0.00	0.04***	0.01***	-0.11***	-0.07***	-0.03***	0.17***	0.04***	0.16***
(21) <i>WorldCompetition</i>	-0.02***	0.03***	-0.01***	-0.01***	-0.04***	-0.01***	-0.01***	0.02***	0.01***	0.19***
(22) <i>InvestorProtection</i>	-0.03***	0.16***	-0.06***	-0.01**	0.06***	-0.02***	0.05***	-0.12***	0.06***	-0.26***
(23) <i>MarketDevelopment</i>	0.01*	0.05***	-0.01**	0.01*	0.00	-0.04***	0.01***	0.02***	0.02***	-0.00
(24) <i>StockLiquidity</i>	-0.01**	-0.17***	0.09***	-0.00	-0.08***	-0.01***	-0.02***	0.17***	-0.10***	0.50***

<i>Continue</i>	(20)	(21)	(22)	(23)	(24)
(20) <i>HiTech</i>					
(21) <i>WorldCompetition</i>	0.20***				
(22) <i>InvestorProtection</i>	-0.02***	0.01			
(23) <i>MarketDevelopment</i>	-0.01**	0.00	0.38***		
(24) <i>StockLiquidity</i>	0.03***	-0.04***	-0.47***	-0.12***	