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The Cost of Potential Delisting of U.S.-Listed Chinese Companies

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Abstract: Because the PCAOB was unable to inspect audits of Chinese accounting firms until recently, regulators introduced legislation (HFCAA) potentially forcing Chinese companies to delist for non-compliance with PCAOB audit requirements. To understand the equity markets' response to this legislation, we analyze the short-term (event study) and long-term stock performance of U.S.-listed Chinese firms relative to the stock performance of other foreign companies. We find that Chinese companies outperform other Asian firms for the Pre-HFCAA Period, but they underperform other Asian firms from the time the HFCAA was introduced (28 March 2019) until an agreement was reached (26 August 2022). For the post-agreement period (26 August 2022 to 31 December 2022), the performance of Chinese and other Asian stocks is similar. Between 28 March 2019 and 31 December 2022, a typical shareholder lost 76% of wealth, and, compared to other Asian companies, the losses were around 87%. The findings highlight the importance of regulatory compliance and transparency in maintaining investor confidence and protecting shareholders' interests.

Keywords: PCAOB; U.S.-listed Chinese companies; stock returns; long-term performance

1. Introduction

The annual financial statements (10-K) of public companies listed on the U.S. stock exchanges must be filed with the U.S. Securities and Exchange Commission (SEC), and these statements are required to be audited by public accounting firms registered with the Public Company Accounting Oversight Board (PCAOB). The PCAOB inspects the audits of accounting firms to assess compliance with various rules, regulations, and professional standards in connection with the accounting firm's performance of audits and issuance of audit reports.[1] This inspection requirement includes accounting firms domiciled in the U.S. and in foreign jurisdictions. To facilitate audit inspections of non-U.S. auditors, the PCAOB has cooperative arrangements with all foreign audit regulators with the sole exception of an agreement with China (Duhnke 2018). Until recently, China's Securities and Regulation Commission (CSRC) has refused to allow the PCAOB to inspect audits of U.S.-listed Chinese firms completed by Chinese accounting firms.

Chinese law restricts auditors from transferring certain company-specific financial information out of the country (Reuters 2022). Because of these restrictions, the PCAOB maintains that many large Chinese companies (e.g., Baidu, China Mobile, PetroChina, the Semiconductor Manufacturing International Corporation) are not complying with U.S. standards (New York Times 2020). Regulators maintain that the lack of transparency in the Chinese financial system puts American investors at risk of fraud. Because of the impasse, the U.S. Senate passed the Holding Foreign Companies Accountable Act (HFCAA, see Figure 1) that would require that (1) U.S.-listed Chinese companies disclose more information about ties to foreign governments and the Chinese Communist Party, and (2) a company be removed from a U.S. exchange if, for three consecutive years, that company does not provide the PCAOB access to audit information.[2] However, two years after the passage of the HFCAA, the PCAOB and the Chinese government (CSRC and Chinese

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Ministry of Finance) announced an agreement to allow the PCAOB to inspect the audits of U.S.-listed Chinese companies (26 August 2022).

Between 28 March 2019 (starting date for the HFCAA) and 26 August 2022 (the PCAOB–China agreement), there was a realistic threat of U.S.-listed Chinese companies being delisted. What was the cost to U.S. shareholders because of potential non-compliance with U.S. regulations? Moreover, the potential investor losses incurred during this period may not be fully recovered even after the PCAOB–China agreement for two reasons. First, given the prior history, it remains unclear whether the PCAOB–China agreement is a permanent solution. If not, there remains a non-trivial likelihood that the Chinese companies may be delisted. Second, PCAOB (2023b) inspections of Chinese audit firms indicate serious audit deficiencies, raising questions about the financial reporting quality of U.S.-listed Chinese companies.

Prior studies find that regulatory announcements and legislative actions can significantly influence investor perceptions and stock prices (Jain and Rezaee 2006). Therefore, we analyze the stock performance of U.S.-listed Chinese companies around HFCAA legislation. If the stock market estimates that the cost of delisting is high for U.S.-listed Chinese companies during the test periods (HFCAA Legislative Period and Effective Period), or that there are concerns with the reliability of the financial statements of these companies because of poor audit quality, we expect the stock market to incorporate this information into the stock price. We assess the relative performance by comparing the stock performance of U.S.-listed Chinese companies with that of other Asian companies listed on U.S. stock exchanges.

Prior research consistently documents that foreign firms benefit from cross listing their shares in the U.S. Some of the benefits include enhanced visibility, higher liquidity, better investor protection, and lower cost of capital (e.g., Hail and Leuz 2009; Doidge et al. 2004; Reese and Weisbach 2002). However, the unique regulatory challenges faced by Chinese firms may have led to opposite outcomes. We find that U.S.-listed Chinese stocks (*CHINESE*) outperform other U.S.-listed Asian stocks (*OTHER-ASIAN*) for the Pre-HFCAA Period. The difference between the two groups is economically and statistically significant. Specifically, *CHINESE* stocks' returns are more than three times that of *OTHER-ASIAN* stocks. However, the results are starkly different for the HFCAA Legislative and HFCAA Effective Periods. *CHINESE* stocks underperform *OTHER-ASIAN* stocks for both periods. For the HFCAA Legislative Period, the mean (median) *CHINESE* stock return is about −10% (−24%), while the corresponding numbers for *OTHER-ASIAN* stocks is about 33% (18%). For the HFCAA Effective Period, the mean (median) *CHINESE* stock return is about −51% (−64%), while the corresponding number for the *OTHER-ASIAN* stocks is −10% (10%). However, following the PCAOB–China Agreement Period, the stock performance of *CHINESE* and of *OTHER-ASIAN* companies is indistinguishable. These results suggest that the losses incurred by U.S. shareholders from owning *CHINESE* stocks when there was a material likelihood of these companies being delisted (Legislative and Effective Periods) were not recovered following the PCAOB–China agreement.

For the HFCAA Legislative and Effective Periods, the returns generated by Chinese stocks that are traded on the Shanghai Stock Exchange (SHANGHAI) mimic those of *OTHER-ASIAN* firms (see Figures 3 and 4). This result further supports our inference that the underperformance of U.S.-listed Chinese firms is linked to potential delisting and not to unique factors associated with Asian/Chinese companies (e.g., the effect of COVID on Chinese companies).

Because our results may be attributable to differences in risk, we perform two additional tests. First, we examine the difference in stock performance after controlling for the following risk factors: (1) *BETA*, as a proxy for systematic risk, (2) *LEVERAGE* (debt to total assets) as a proxy for financial risk, (3) *BOOK–MARKET* (book value of equity to market value of equity) as a proxy for default risk, and (4) *FFI* (Fama–French Industry) as a proxy for industry-specific return differences. Controlling for the four risk proxies, *CHINESE* stocks outperform *OTHER-ASIAN* stocks for the Pre-HFCAA Period, but underperform the benchmark companies for the HFCAA Legislative and HFCAA Effective Periods. Second,

we also replicate the results using the Fama and French (1993) three-factor model and find consistent results.

Finally, we analyze the combined period when there was a material threat of delisting (HFCAA Legislative and HFCAA Effective Periods) relative to the period when this threat was eliminated (PCAOB–China Agreement Period). We find that *CHINESE* stocks underperform *OTHER-ASIAN* stocks for the combined period, and the loss of wealth to U.S. shareholders holding Chinese stocks is staggeringly large. Using the mean (median) number, our estimates suggest that a typical U.S. shareholder holding Chinese stocks during the combined period lost about 46% (76%) of value. During the same period, other Asian stocks earned about 15% (11%). Therefore, *CHINESE* stocks underperform *OTHER-ASIAN* stocks by about 61% (87%) for the combined period. The losses incurred by investors holding U.S.-listed Chinese stocks during the HFCAA period illustrate the tangible costs of regulatory non-compliance and the erosion in investor confidence because of potential delisting and poor-quality financial reporting.

Overall, the insights gained from our results underscore the risks associated with regulatory non-compliance and highlight the importance of transparency and rigorous audit practices. The significant financial losses incurred by investors due to regulatory uncertainties surrounding Chinese firms highlight the need for ongoing vigilance and improved regulatory frameworks to foster a more robust and resilient global financial market.

This paper provides a better understanding of the economic effects of non-compliance with PCAOB inspections. Although the PCAOB–China Agreement allows the PCAOB to inspect the audit completed by Chinese audit firms, whether these inspections will lead to an improvement in the quality of Chinese audits in the near term is uncertain. Also, it remains unclear whether investors believe that the PCAOB–China Agreement will withstand the test of time. Therefore, while the inspections are expected to lead to improvements in the integrity of financial statements of U.S.-listed Chinese firms, assuming that the agreement is not annulled, U.S. shareholders may need to hold for a longer horizon to recover some of their losses.

Ultimately, the findings emphasize the significance of regulatory compliance, transparency, and the role of regulatory bodies like the PCAOB in maintaining investor confidence and safeguarding shareholders' interests. As Chinese firms continue to navigate the regulatory landscape, it is imperative to recognize and address the challenges and consequences associated with regulatory compliance, ultimately to foster a more robust and resilient global financial market.

This paper is structured as follows: Section 2 provides the background. Section 3 provides a detailed description of our data. Section 4 presents methodology used for short- and long-term performance. Section 5 discusses our empirical results. Finally, Section 6 offers concluding remarks.

2. Background

2.1. Holding Foreign Companies Accountable Act (HFCAA)

Under the Sarbanes–Oxley Act (2002), the PCAOB is required to inspect registered public accounting firms. According to the PCAOB, inspections are intended to assess compliance with the Sarbanes–Oxley Act, the rules of the Board, the rules of the Securities and Exchange Commission (SEC), and professional standards, in connection with the firm's performance of audits, issuance of audit reports, and related matters involving U.S. public companies. Jain and Rezaee (2006) claim that the market reaction is more positive for firms that are more compliant with the provisions of the Sarbanes–Oxley Act. However, until recently, the PCAOB had been unable to fully inspect the audit papers and other documents of accounting firms domiciled in mainland China and Hong Kong. The China Securities Regulatory Commission had contended for more than a decade that, while it is prepared to cooperate with the U.S. on matters related to audit inspections by the PCAOB, it prohibited the Board's access to information related to China's security and other interests.

Regulators contend that the PCAOB's inability to inspect Chinese audit firms posed a serious risk to U.S. investors who have been significantly increasing their exposure to U.S.-listed Chinese companies in the last 10 years. Precipitated by Luckin Coffee's disclosure of a massive financial fraud,[3] the U.S. Senate's Committee on Banking, Housing, and Urban Affairs embarked on a bill (Holding Foreign Companies Accountable Act, HFCAA) from 28 March 2019 requiring the following: (1) certain issuers of securities must establish that they are not owned or controlled by a foreign government, (2) an issuer must make this certification if the PCAOB is unable to audit specified reports because the issuer has retained a foreign public accounting firm not subject to inspection by the board, and (3) if the PCAOB is unable to inspect the issuer's public accounting firm for three consecutive years, the issuer's securities are banned from trading on a national exchange or through other methods. This Senate bill was passed by unanimous consent on 20 May 2020. The bill was then considered by the House of Representatives and approved without any objections on 2 December 2020. Finally, the bill was presented to the President of the U.S. and signed by him into a Public Law (No: 116–222) on 18 December 2020.[4]

The HFCAA was effective between 18 December 2020 and 25 August 2022. However, on 26 August 2022, the PCAOB announced that it had signed a Statement of Protocol with the China Securities Regulatory Commission and the Ministry of Finance of the People's Republic of China to allow the PCAOB to inspect and investigate registered public accounting firms headquartered in mainland China and Hong Kong without any restrictions. To test compliance with every aspect of the agreement, the PCAOB sent more than 30 PCAOB staff to conduct on-site inspections and investigations in Hong Kong over a nine-week period from September to November 2022.

The PCAOB selected two firms for inspection: KPMG Huazhen LLP in mainland China and PricewaterhouseCoopers in Hong Kong. The two inspected firms audited 40 percent of the total market share of U.S.-listed Chinese companies audited by Chinese and Hong Kong accounting firms. The PCAOB staff selected these two firms based on the methodology used in all PCAOB inspections, including consideration of risk factors posed by particular firms or issuers, and with a focus on any audit areas believed to be of greater complexity or significance, or to pose a heightened risk of material misstatement to the issuers' financial statements. According to the PCAOB, the Chinese regulatory authorities or the firms did not have any input or influence over the selections.

On 10 May 2023, the PCAOB (2023b) released its 2022 Inspection Reports for Mainland China, Hong Kong Audit Firms. The PCAOB inspected a total of eight engagements, four at each of the two firms, including the types of engagements—such as state-controlled companies and corporations in sensitive industries—that China blocked access to previously. The inspections found Part I.A deficiencies in four out of four of the audits reviewed at KPMG Huazhen (PCAOB 2023a), which is a 100 percent rate, while the rate of deficiency was 75 percent at PwC Hong Kong, or three out of four audits reviewed. Even on a relative basis, these deficiency rates are much higher than the deficiency rates associated with the US Big 4 audit firms (typically ranging between 20% and 35%).

2.2. Literature Review

The PCAOB inspects registered public accounting firms to "assess compliance with the Sarbanes-Oxley Act, the rules of the Board, the rules of the Securities and Exchange Commission, and professional standards, in connection with the firm's performance of audits, issuance of audit reports, and related matters involving U.S. public companies, other issuers, and broker-dealers" (see PCAOB inspections at https://pcaobus.org/oversight/inspections (accessed on 5 August 2024)). According to the PCAOB, these inspections are designed to drive improvement in the quality of audit services through a focus on effective prevention, detection, and deterrence of audit and quality control deficiencies, and the oversight of firms' remediation of identified deficiencies. Audit quality and regulatory inspections play crucial roles in maintaining investor confidence. For instance, among

others, Bushman et al. (2004) and Karpoff and Lott (1993) underscore the penalties firms face for regulatory non-compliance.

However, the PCAOB's challenges to inspecting Chinese firms have been well documented. For instance, Duhnke (2018) highlights the barriers posed by Chinese law on transferring financial information out of the country, which limits the PCAOB's ability to inspect audits of U.S.-listed Chinese firms. The introduction of the Holding Foreign Companies Accountable Act (HFCAA) in 2020 further escalated these issues, aiming to enforce compliance and transparency among foreign firms listed in the U.S. (New York Times 2020).

While prior studies consistently document the benefits of cross-listing shares of foreign firms on U.S. stock exchanges including enhanced visibility, higher liquidity, and reduced cost of capital (Hail and Leuz 2009; Doidge et al. 2004; Reese and Weisbach 2002), the unique challenges faced by Chinese firms may lead to lead to less favorable outcomes because of the threat of delisting and also because of audit quality concerns. Therefore, as in prior studies (e.g., MacKinlay 1997), we rely on an event study approach to understand stock market's response to regulatory changes surrounding Chinese companies listed on U.S. stock exchanges. Further, because Barber and Lyon (1997) highlight the power of long-run abnormal return tests to detect stock market response, we also evaluate investor response to these regulatory initiatives over the long run.

In this paper, we provide an estimate of this cost of potential delisting and audit quality concerns by analyzing the stock performance of U.S.-listed Chinese companies. To gain a better understanding of how the stock market responds to the threat of delisting, we analyze four distinct periods between 2019 and 2022: (1) the Pre-HFCAA Period (1 January to 27 March 2019; 59 trading days), (2) the HFCAA Legislative Period (28 March 2019 to 17 December 2020; 437 trading days), (3) the HFCAA Effective Period (18 December 2020 to 25 August 2022; 424 trading days), and (4) the PCAOB–China Agreement Period (26 August to 31 December 2022; 87 trading days). We also examine the combined period from 28 March 2019 to 31 December 2022.

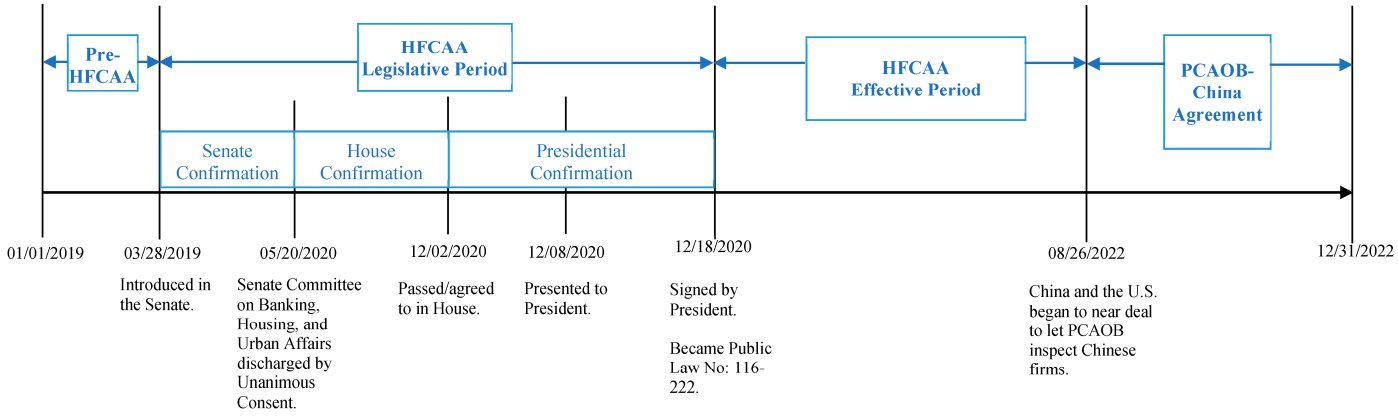


Figure 1. Timeline surrounding the Holding Foreign Companies Accountable Act (HFCAA).

3. Materials

Our data were collected from several sources. Stock trading data were obtained from the Center for Research in Security Prices (CRSP), accessed via WRDS (Wharton Research Data Services). We obtained information about Chinese companies listed on major U.S. stock exchanges from the U.S.–China Economic and Security Review Commission website.[5] As of 9 January 2023, there were a total of 252 Chinese companies listed on U.S. exchanges with a total market capitalization of 1.03 trillion dollars. According to the website, as of 9 January 2023, 137 Chinese companies, representing 99 percent of the market capitalization of Chinese companies listed on these exchanges, used auditors from those jurisdictions.

Our control sample consisted of Asian companies listed on U.S. stock exchanges (other than U.S.-listed companies from China and Hong Kong). We obtained this list of companies from Stock Market MBA, an educational website whose mission is to provide the best online education on the stock market.[6] The data required to estimate the Fama and French (1993) three-factor model were obtained from Ken French's website.[7]

Table 1 reports the population of Asian firms listed on U.S. stock exchanges between 2019 and 2022. We partition U.S.-listed Asian firms into two groups: firms based in mainland China and Hong Kong (*CHINESE*), and other Asian firms (*OTHER-ASIAN*) domiciled in Asia, excluding mainland China and Hong Kong. *OTHER-ASIAN* includes companies from India, Japan, South Korea, Malaysia, Taiwan, and Thailand. Panel A tabulates the number of Asian firms trading in the U.S. between 2019 and 2022. We found that firms headquartered in China are among the most prominent cross-listing examples in the U.S. compared to those from other parts of Asia. For instance, between 2019 and 2022, the number of companies listed on U.S. stock exchanges from China were generally 5 to 6 times the number from other Asian countries.

Table 1. U.S.-listed companies domiciled in Asia.

Panel A: U.S.-Listed Asian Companies		
	CHINESE	*OTHER ASIAN*
2019	211	41
2020	250	47
2021	260	55
2022	262	58
Panel B: U.S.-listed Asian companies available in CRSP (included in our sample)		
Pre-HFCAA Period (1 January to 27 March 2019)		
• As of 27 March 2019	104	32
HFCAA Legislative Period (28 March 2019 to 17 December 2020)		
• As of 17 December 2020	103	31
HFCAA Effective Period (18 December 2020 to 25 August 2022)		
• As of 25 August 2022	117	30
PCAOB–China Agreement Period (26 August to 31 December 2022)		
• As of 31 December 2022	129	31

This table reports the sample size for Chinese companies and other Asian companies. *CHINESE* includes companies domiciled in mainland China and Hong Kong. *OTHER ASIAN* countries include India, Japan, South Korea, Malaysia, Taiwan, and Thailand. Panel A reports the total number of firms traded in the U.S. that are domiciled in Asian countries. Panel B reports the number of firms included in CRSP (Center for Research in Security Prices) in each of the four periods (Pre-HFCAA Period, HFCAA Legislative Period, HFCAA Effective Period, PCAOB–China Agreement Period).

As Panel B of Table 1 shows, because of stock price data requirements, our sample consisted of 104 (32) *CHINESE* (*OTHER-ASIAN*) companies for the Pre-HFCAA Period, 103 (31) for the HFCAA Legislative Period, 117 (30) for the HFCAA Effective Period, and 129 (31) for the PCAOB–China Agreement Period.

4. Methods

4.1. Short-Term Performance (Event Study)

We examined the stock market reaction to the announcement of the various stages of the HFCAA legislative process (events). Specifically, we computed cumulative abnormal returns (*CARs*) around a five-day event window for the following dates: (1) the introduction of the HFCAA at the Senate (28 March 2019), (2) the passing of the HFCAA at the Senate (20 May 2020), (3) the passing of the HFCAA by the House of Representatives (2 December 2020), (4) when the HFCAA becomes the law on the day it is signed by the President

(18 December 2020), and (5) when China and the PCAOB reach an agreement to allow inspections (26 August 2022).

We computed the *CARs* in two ways, as in MacKinlay (1997). *CAR*1, measured over five days around an event window (−2 to +2), which is commonly used, is defined as follows:

$$CAR1_{i,5} = \prod_{t=1}^{5}(1 + CR_{i,t}) - \prod_{t=1}^{5}(1 + EWRETD_t) \quad (1)$$

where $CR_{i,t}$ is the daily stock return of Chinese firm i on day t from CRSP, and $EWRETD_t$ is the equally weighted return on day t from CRSP, our proxy for daily market returns. Similarly, we measured *CAR*2 over five days around an event, as follows:

$$CAR2_{i,5} = \prod_{t=1}^{5}(1 + CR_{i,t}) - \prod_{t=1}^{5}(1 + AR_t) \quad (2)$$

where AR_t is the mean of daily stock returns of *OTHER-ASIAN* firms on day t. Therefore, *CAR*1 is market-adjusted cumulative abnormal returns, while *CAR*2 is control-firm-adjusted cumulative abnormal returns. We tested the mean differences in *CAR*1 and *CAR*2 using *t*-tests.

4.2. Long-Term Performance

Because the likelihood of the potential delisting of Chinese firms may be uncertain during the HFCAA event times, and because the market may process the information over a longer period, we also measured long-term stock performance using buy-and-hold raw stock returns (*CRET*s) (e.g., Barber and Lyon 1997). The *CRET* for firm i was computed using daily raw returns (R) compounded for the holding period (t) beginning from 0 to T, as follows, where T is the length of time to measure returns (holding period). To test the statistical significance of mean (median) CRETs, we used *t*-tests (Wilcoxon rank-sum tests).

$$CRET_{i,T} = \prod_{t=0}^{T}(1 + R_{i,t}) - 1 \quad (3)$$

To control for risk, we also examined the long-run underperformance after controlling for four risk proxies. *BETA* (systematic risk proxy) was estimated from the market model by regressing daily stock returns on market returns where CRSP equally weighted returns (*EWRETD*) was the proxy for market returns. *LEVERAGE* (financial risk proxy) was estimated as the book value of total debt to the book value of total assets. *BOOK–MARKET* (default risk proxy) was estimated as the book value of equity to the market value of equity. *FFI* represents the five Fama–French industries. *CHINESE* is a dummy variable that equals 1 when firm i is domiciled in mainland China or Hong Kong, or else zero. We relied on *t*-tests to assess the statistical significance of the estimated coefficients.

$$CRET_{i,T} = \beta_0 + \beta_1 CHINESE_i + \beta_2 BETA_i + \beta_3 LEVERAGE_i + \beta_4 BOOK - MARKET_i + \beta_5 FFI_i + \varepsilon_i \quad (4)$$

Finally, we also examined the long-run underperformance based on the Fama and French (1993) three-factor model using their calendar time portfolio approach to estimate the model. Specifically, we generated daily portfolio returns for *CHINESE* firms ($R_{CHINESE}$) and for *OTHER-ASIAN* firms ($R_{OTHER-ASIAN}$). The difference between the two portfolios ($R_{CHINESE} - R_{OTHER-ASIAN}$) was the dependent variable. The independent variables were *MARKET*, *SMB*, and *HML*, which were directly downloaded from Ken French's website.[8] Specifically we estimated the following regression:

$$R_{CHINESE,t} - R_{OTHER-ASIAN,t} = \alpha_t + \beta_1 MARKET_t + \beta_2 SMB_t + \beta_3 HML_t + \epsilon_t \quad (5)$$

5. Results and Discussion

5.1. Short-Term Performance

Table 2 reports *CAR*1 and *CAR*2 for the following five event dates associated with various stages of the HFCAA legislative process: 28 March 2019; 20 May 2020; 2 December 2020; 18 December 2020; and 26 August 2022. *CAR*1/*CAR*2 (0.01%/1.04%) is statistically insignificant around 28 March 2019. Thus, we did not find any reliable evidence to indicate

that investors responded negatively to the news about the introduction of the HFCAA in the Senate.

Table 2. Stock market reaction around the various stages of the HFCAA legislative process.

	***CAR*1**	***CAR*2**
• 28 March 2019	0.0001 (0.02)	0.0104 (1.64)
• 20 May 2020	−0.0579 (−5.81) ***	−0.0002 (−0.02)
• 2 December 2020	−0.0627 (−7.54) ***	−0.0700 (−8.29) ***
• 18 December 2020	0.0212 (2.40) **	0.0385 (4.34) ***
• 26 August 2022	0.0298 (3.52) ***	0.0220 (2.55) **

This table reports the mean CARs for U.S.-listed Chinese firms around the following event dates (measured over five days around each event window): (1) the introduction of the HFCAA at the Senate (28 March 2019), (2) the passing of the HFCAA at the Senate (20 May 2020), (3) the passing of the HFCAA by the House of Representatives (2 December 2020), (4) when the HFCAA becomes the law the day it is signed by the President (18 December 2020), and (5) when China and the PCAOB reach an agreement to allow inspections (26 August 2022). *CAR*1 is the difference between the buy-and-hold stock returns of *CHINESE* firms for five days around an event window and the buy-and-hold CRSP equally weighted returns for the corresponding period. *CAR*2 is the difference between the buy-and-hold stock returns of *CHINESE* firms for five days around an event window and the buy-and-hold stock returns of *OTHER-ASIAN* firms for the corresponding period. *CHINESE* includes companies domiciled in mainland China and Hong Kong. *OTHER-ASIAN* countries include India, Japan, South Korea, Malaysia, Taiwan, and Thailand. To test whether the mean *CAR*1/*CAR*2 differs from 0, we relied on the *t*-test (reported in in parentheses). *** and ** indicate significance at the 1% and 5% level, respectively.

In contrast, *CAR*1 was −5.79% and statistically significant, but *CAR*2 was only −0.02% and statistically insignificant around 20 May 2020 (passing of the HFCAA in the Senate), which suggests that the investor reaction was not reliably different between *CHINESE* and *OTHER-ASIAN* companies to the news about passing of the HFCAA in the Senate. *CAR*1 and *CAR2* were both negative (−6.27% and −7.0%) and statistically significant around 2 December 2020 (passing of the HFCAA in the House of Representatives), indicating that investors responded negatively to the news about the material increase in the likelihood of potential future delisting of *CHINESE* firms.

Surprisingly, although we expected the stock market to respond negatively to key events surrounding the development of the HFCAA, *CAR*1 and *CAR*2 were both positive (2.12% and 3.85%) and statistically significant around 18 December 2020 (the day the HFCAA became law). The results suggests that investors are optimistic that the passing of the HFCAA might induce Chinese authorities to reach an agreement with PCAOB and allow inspections of Chinese audit firms. Finally, as expected, *CAR*1 and *CAR*2 were both positive (2.98% and 2.20%) and statistically significant around 26 August 2022 (PCAOB–China Agreement date), which suggests that investors responded positively to the news about the lower likelihood of the delisting of U.S.-listed Chinese companies because the agreement allows the PCAOB inspections of Chinese audit firms.

5.2. Long-Term Performance

Figure 2 suggests that Chinese firms outperformed Other Asian companies or the Shanghai Index for the Pre-HFCAA Period, while Figures 3 and 4 suggest that Chinese firms underperformed compared to Other Asian companies or the Shanghai Index for the HFCAA Legislative Period and the HFCAA Effective Period. Therefore, we examined the long-term performance of Chinese and Other Asian companies in detail for the following four periods: the Pre-HFCAA Period (1 January to 27 March 2019), the HFCAA Legislative Period (28 March 2019 to 17 December 2020), the HFCAA Effective Period (18 December 2020 to 25 August 2022), and the PCAOB–China Agreement Period (26 December to 31 December 2022).

For the Pre-HFCAA Period, the mean (median) buy-and-hold stock return, *CRET*, is 17.49% (17.36%) for *CHINESE* companies and 6.09% (3.82%) for *OTHER-ASIAN* companies (Panel A of Table 3). The mean and median differences between the two groups are both statistically significant. The difference in returns is also economically large. The stock performance of *CHINESE* companies is between three and four times that of *OTHER-ASIAN* companies. This result is consistent with the notion that Chinese listings in the U.S. attracted investors who wanted to capitalize on the strong economic growth in China prior to any talks about the delisting of U.S.-listed Chinese firms.

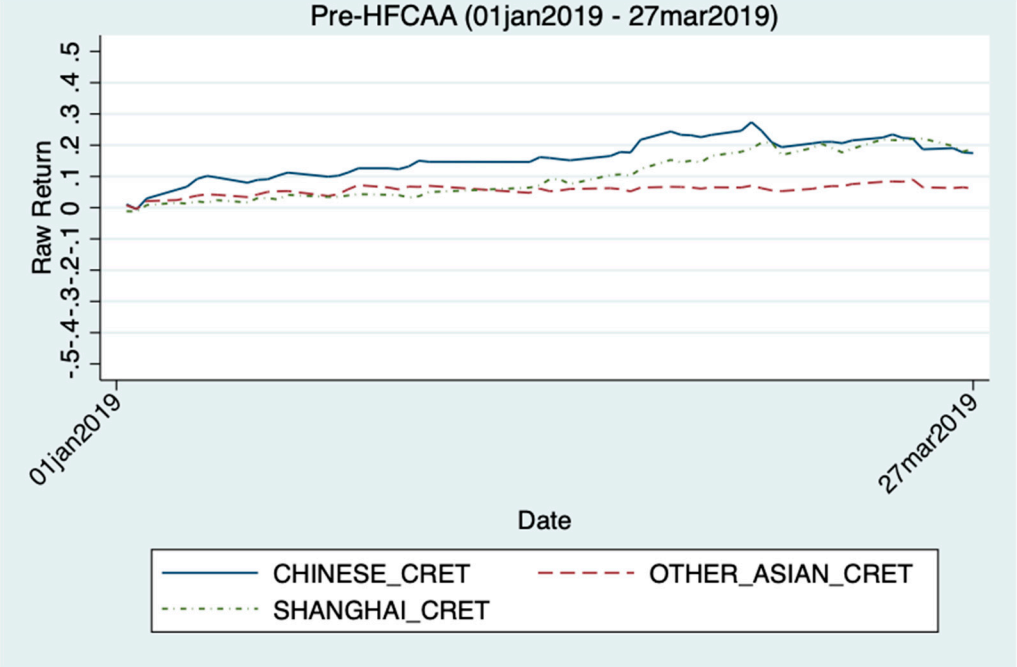


Figure 2. Graphs buy and hold stock returns (*CRET*s) for the Pre-HFCAA Period for *CHINESE* and *OTHER ASIAN* companies. SHANGHAI is the SSE Composite Index, a stock market index of all stocks that are traded on the Shanghai Stock Exchange. *CHINESE* includes companies domiciled in mainland China and Hong Kong. *OTHER ASIAN* countries include India, Japan, South Korea, Malaysia, Taiwan, and Thailand.

In sharp contrast, there is a reversal in the stock performance for the HFCAA Legislative Period (28 March 2019 to 17 December 2020). *CHINESE* companies underperformed compared to *OTHER-ASIAN* companies. As Panel B of Table 3 shows, the mean (median) buy-and-hold stock return for *CHINESE* is −9.69% (−23.66%), while the corresponding number for *OTHER-ASIAN* is 33.11% (17.81%). The mean (median) difference in stock returns is statistically and economically significant. The difference in stock returns between the two groups is between 42% and 43%. Using the median as a typical firm, our findings indicate that *OTHER-ASIAN* companies outperformed *CHINESE* companies by 75% = [0.1781/(−0.2366)] over the HFCAA Legislative Period. Notwithstanding that the HFCAA was yet to become law, our results suggest that the market participants were sufficiently concerned that the impasse between U.S. and Chinese financial regulators could lead to a material likelihood of U.S.-listed Chinese firms being delisted from U.S. stock exchanges.

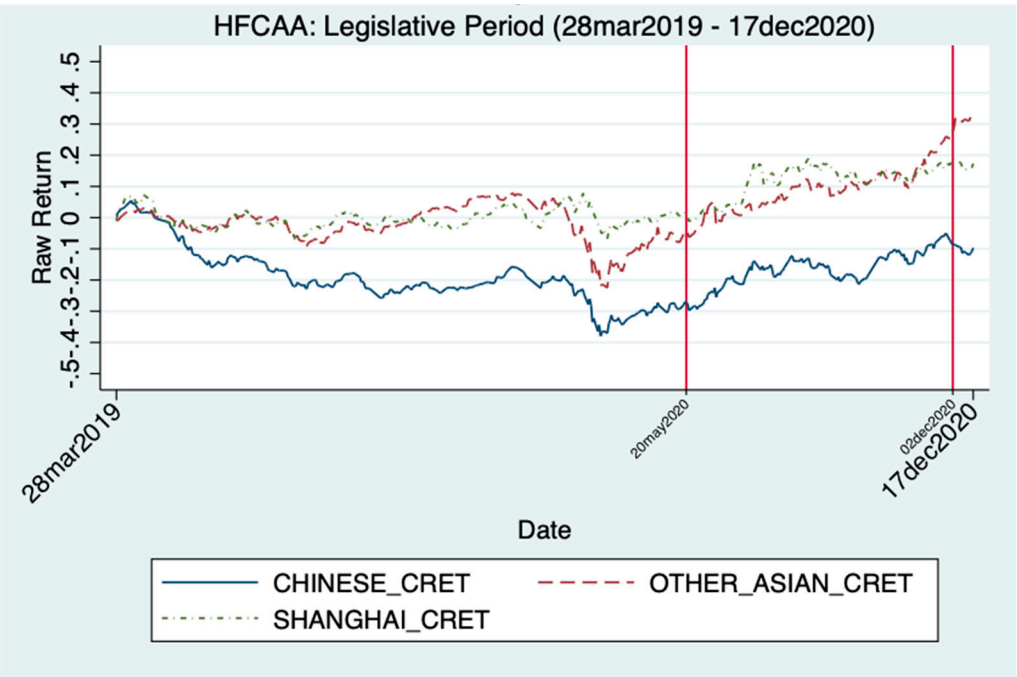


Figure 3. Graphs buy and hold stock returns (*CRETs*) for the HFCAA Legislative Period for *CHINESE* and *OTHER ASIAN* companies. SHANGHAI is the SSE Composite Index, a stock market index of all stocks that are traded on the Shanghai Stock Exchange. *CHINESE* includes companies domiciled in mainland China and Hong Kong. *OTHER ASIAN* countries include India, Japan, South Korea, Malaysia, Taiwan, and Thailand.

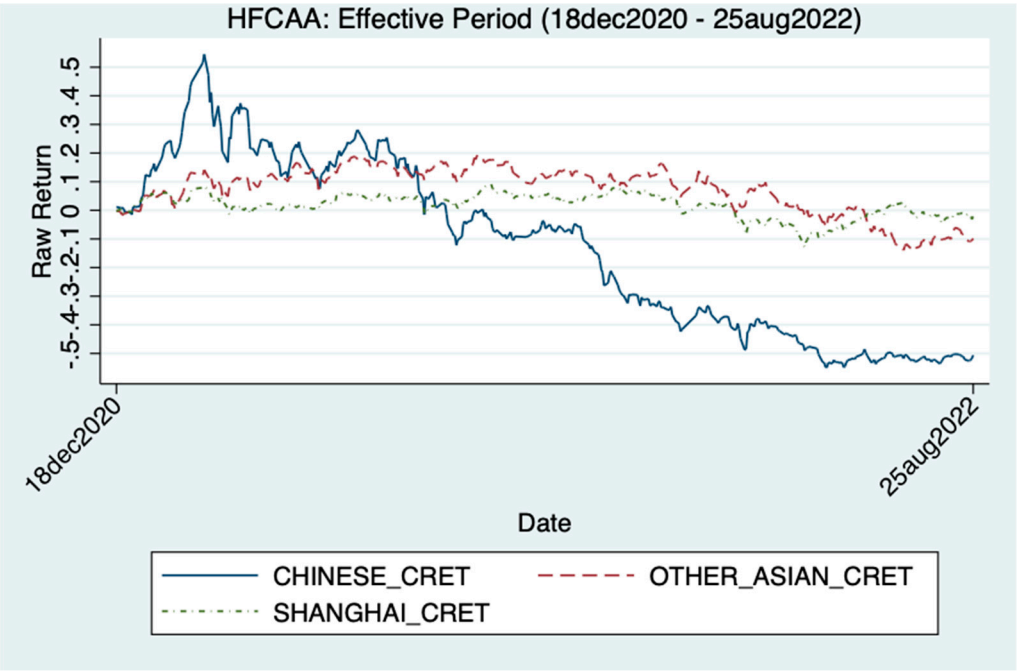


Figure 4. Buy-and-hold stock returns (*CRETs*) for the HFCAA Effective Period for *CHINESE* and *OTHER ASIAN* companies. SHANGHAI is the SSE Composite Index, a stock market index of all stocks that are traded on the Shanghai Stock Exchange. *CHINESE* includes companies domiciled in mainland China and Hong Kong. *OTHER ASIAN* countries include India, Japan, South Korea, Malaysia, Taiwan, and Thailand.

Once the HFCAA was signed by the President on 18 December 2020 and it became a Public Law, we expected Chinese companies to continue to underperform compared to benchmark firms. This is because the regulation would force Chinese firms to delist from U.S. stock exchanges in three years if the PCAOB could not inspect the audit papers of their accounting firms during this period consecutively. Consistent with our expectations, we found that *CHINESE* firms continued to underperform compared to benchmark firms until U.S. and Chinese regulators finally reached an agreement to allow PCAOB inspections of Chinese audit firms on 26 August 2022 (see Figure 4). As Panel C of Table 3 shows, the mean (median) buy-and-hold raw return for *CHINESE* firms is −50.61% (−63.94%). For *OTHER-ASIAN* firms, the corresponding number is −9.85% (−9.73%). The difference between the two groups of firms is, again, statistically and economically significant. Our results suggest that using mean (median) as a benchmark, a typical non-Chinese Asian company listed on a U.S. stock exchange outperformed a U.S.-listed Chinese company by five (six) times.

Table 3. Stock performance of U.S.-listed Chinese versus other U.S.-listed Asian companies.

	N	Mean	Median
Panel A: Pre-HFCAA Period (1 January to 27 March 2019)			
CHINESE	104	0.1749	0.1736
OTHER-ASIAN	32	0.0609	0.0382
Difference		0.1140	0.1354
(t-z stat)		(2.95) ***	(2.43) **
Panel B: HFCAA Legislative Period (28 March 2019 to 17 December 2020)			
CHINESE	103	−0.0969	−0.2366
OTHER-ASIAN	31	0.3311	0.1781
Difference		−0.4280	−0.4147
(t-z stat)		(−2.93) ***	(−3.66) ***
Panel C: Period HFCAA is Effective (18 December 2020 to 25 August 2022)			
CHINESE	117	−0.5061	−0.6394
OTHER-ASIAN	30	−0.0985	−0.0973
Difference		−0.4076	−0.5421
(t-z stat)		(−4.76) ***	(−4.97) ***
Panel D: PCAOB–China Agreement Period (26 August to 31 December 2022)			
CHINESE	129	−0.1224	−0.1938
OTHER-ASIAN	31	−0.0739	−0.0831
Difference		−0.0485	−0.1107
(t-z stat)		(−1.06)	(−1.94)

This table reports the mean and median stock performance results for Chinese companies and other Asian companies. Stock performance is measured using buy-and-hold stock returns (*CRETs*) for four holding periods (Pre-HFCAA Period, HFCAA Legislative Period, HFCAA Effective Period, PCAOB–China Agreement Period). *CHINESE* includes companies domiciled in mainland China and Hong Kong. *OTHER-ASIAN* countries include India, Japan, South Korea, Malaysia, Taiwan, and Thailand. We also report the difference in the mean (median) numbers between the two groups and the associated t(z)-statistic. N is the number of firms. We dropped outliers with values exceeding 3.00. To test whether the mean (median) values were significantly different, we relied on the *t*-test (Wilcoxon rank-sum test). T-statistics and Wilcoxon rank-sum statistics are in parentheses. *** and ** indicate significance at the 1% and 5% level, respectively.

On 26 August 2022, the PCAOB and Chinese financial regulators reached an agreement to allow the PCAOB to inspect the audit papers of Chinese audit firms serving as auditors of U.S.-listed Chinese firms. The PCAOB–China Agreement Period extended between 26 August and 31 December 2022, as shown in Figure 5. Because the threat of delisting was eliminated, we did not expect *CHINESE* firms to underperform compared to *OTHER-ASIAN* companies during this period. Consistent with our expectations, we found that the difference between *CHINESE* and *OTHER-ASIAN* companies was statistically insignificant. As Panel D of Table 3 shows, the mean (median) buy-and-hold stock return for *CHINESE*

firms is −12.24% (−19.38%) and the corresponding number for *OTHER-ASIAN* firms is −7.39% (−8.31%).

In summary, prior to any threat of U.S.-listed Chinese firms being delisted from U.S. stock exchanges, the stock performance of *CHINESE* companies was between two and five times the stock performance of *OTHER-ASIAN* companies. However, for the duration of the HFCAA Legislative Period, the stock performance of *OTHER-ASIAN* companies was more than twice the stock performance of *CHINESE* companies. The underperformance of *CHINESE* companies was even greater for the HFCAA Effective Period; the stock performance of *OTHER-ASIAN* companies was between five and seven times the stock performance of *CHINESE* companies. This underperformance of *CHINESE* companies ended with the PCAOB–China Agreement Period.

Could differences in risk be an explanation for the underperformance of Chinese firms? To answer this question, we analyzed four risk variables—*BETA*, *LEVERAGE*, *BOOK–MARKET*, and *FFI*—as shown in Table 4. We found that the mean and median differences in *BETA*, *LEVERAGE*, and *BOOK–MARKET* between *CHINESE* and *OTHER-ASIAN* groups were statistically significant. Specifically, the *BETA* was higher for Chinese companies than for other Asian companies, while *LEVERAGE* and *BOOK–MARKET* were higher for other Asian companies than for Chinese companies. Thus, while systematic risk was higher for Chinese companies than for other Asian companies, financial risk and default risk were higher for other Asian companies.

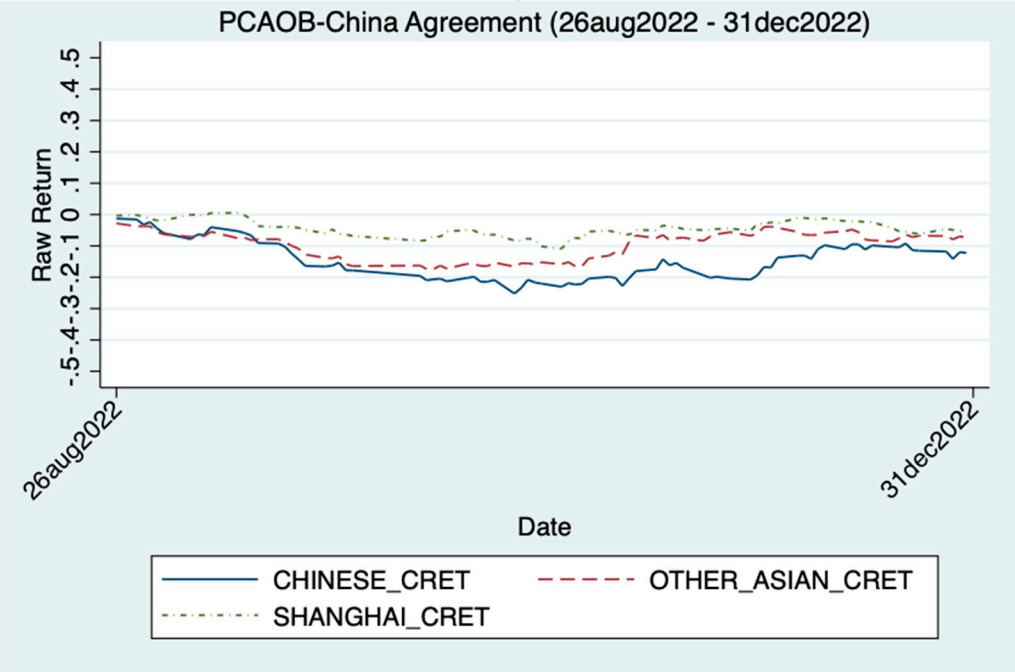


Figure 5. Buy and hold stock returns (*CRETs*) for the PCAOB–China Agreement Period for *CHINESE* and *OTHER ASIAN* companies. SHANGHAI is the SSE Composite Index, a stock market index of all stocks that are traded on the Shanghai Stock Exchange. *CHINESE* includes companies domiciled in mainland China and Hong Kong. *OTHER ASIAN* countries include India, Japan, South Korea, Malaysia, Taiwan, and Thailand.

As outlined in Table 5, we examined whether the stock underperformance of Chinese companies persisted after controlling for the four risk proxies. The coefficient on *CHINESE*, an indicator variable, captures the incremental difference in the stock performance of Chinese companies relative to other Asian companies. For the Pre-HFCAA Period, the coefficient of *CHINESE* is statistically significant (0.1283, t-stat = 2.48). Thus, consistent with Table 3's results, we found that, controlling for the four risk proxies, U.S.-listed Chinese stocks outperformed other U.S.-listed Asian companies for the Pre-HFCAA Period. How-

ever, the coefficients of *CHINESE* are negative and statistically significant for the HFCAA Legislative Period (−0.5214, t-stat = −3.29) and the HFCAA Effective Period (−0.3058, t-stat = −3.36). Thus, our results suggest that Chinese firms began underperforming relative to other Asian companies once there was a material likelihood of a Chinese company being delisted from a U.S. stock exchange.

As shown in Table 6, we further examined the underperformance of Chinese companies using the Fama–French three-factor model. We used a calendar time portfolio approach to estimate the three-factor model. For the Pre-HFCAA Period, the coefficient on *ALPHA* was positive and statistically significant (0.0034, t-stat = 2.26). Thus, our results suggest that Chinese companies outperformed other Asian companies after controlling for the three risk factors. The results are economically significant at about 0.3 basis points per day. In sharp contrast, for the HFCAA Legislative Period (−0.0017, t-stat = −4.63) and the HFCAA Effective Period (−0.0018, t-stat = −3.03), the coefficients of *ALPHA* were both negative and statistically significant. Thus, the underperformance of Chinese companies coincides with the period when there is a material likelihood of a Chinese company being delisted from a U.S. stock exchange.

Table 4. Risk differences for the Pre-HFCAA Period (1 January 2019).

		CHINESE	***OTHER-ASIAN***	**Difference**
BETA				
	Observations	117	30	
	Mean	0.7567	0.6541	0.1026 (2.16) **
	Median	0.7786	0.6462	0.1324 (2.05) **
LEVERAGE				
	N	117	30	
	Mean	0.1663	0.2311	−0.0647 (−1.93) *
	Median	0.0882	0.2195	−0.1313 (−2.55) ***
BOOK–MARKET				
	Observations	117	30	
	Mean	0.7119	1.3140	−0.6021 (−3.30) ***
	Median	0.3334	1.2959	−0.9625 (−3.88) ***
FFI				
•	Consumer Durables, Non-Durables, Wholesale, Retail, and Some Services	22 (18.80%)	2 (6.67%)	
•	Manufacturing, Energy, and Utilities	10 (8.55%)	3 (10.00%)	
•	Business Equipment, Telephone and Television Transmission	43 (36.75%)	16 (53.33%)	
•	Healthcare, Medical Equipment, and Drugs	7 (5.98%)	1 (3.33%)	
•	Other—Mines, Construction, Building Material, Transportation, Hotels, Business Services, Entertainment, and Finance	35 (29.91%)	8 (26.67%)	

This table reports the mean and median values of four firm-specific risk proxies for Chinese companies and other Asian companies. The risk proxies include BETA (estimated from the market model using daily stock returns from 1 January to 31 December 2018, Pre-HFCAA), *LEVERAGE* (ratio of total debt to total assets), *BOOK–MARKET* (ratio of the book value of equity to the market value of equity), and *FFI* (Fama–French industry codes). We winsorized *LEVERAGE* to make it less than 1.00, and winsorized *BOOK–MARKET* to make it less than 4.00. *CHINESE* includes companies domiciled in mainland China and Hong Kong. *OTHER-ASIAN* countries include India, Japan, South Korea, Malaysia, Taiwan, and Thailand. We also report the difference in the mean (median) numbers between the two groups and the associated t(z)-statistic. N is the number of firms in the sample. To test whether mean (median) values were significantly different, we relied on the *t*-test (Wilcoxon rank-sum test). T-statistics and Wilcoxon rank-sum statistics are in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

Table 5. Stock performance of U.S.-listed companies after controlling for risk.

	Pre-HFCAA	HFCAA Legislative	HFCAA Effective
ALPHA	−0.1224 (−1.30)	0.3282 (1.12)	−0.3830 (−2.36) **
CHINESE	0.1283 (2.48) **	−0.5214 (−3.29) ***	−0.3058 (−3.36) ***
BETA	0.2397 (3.06) ***	0.4690 (1.82) *	−0.0603 (−0.45)
LEVERAGE	0.1935 (1.60)	0.0055 (0.02)	0.3640 (1.91) *
BOOK–MARKET	0.0291 (1.24)	−0.0926 (−1.25)	0.1110 (2.78) ***
FFI	−0.0193 (−1.29)	−0.0574 (−1.27)	0.0282 (1.12)
Observations	136	134	147
Adjusted-R^2	13.23%	7.54%	17.22%

This table reports the estimated coefficients (and the associated t-statistics in parentheses) from OLS regressions for each of the three periods: Pre-HFCAA, HFCAA Legislative, and HFCAA Effective. CHINESE is dummy variable equal to 1 when it is a CHINESE firm and equal to zero when it is an *OTHER-ASIAN* firm. *BETA* is estimated from the market model using daily stock returns from 1 January to 31 December 2018 (Pre-HFCAA). *LEVERAGE* is the ratio of total debt to total assets, *BOOK–MARKET* is the ratio of the book value of equity to the market value of equity, and FFI is the Fama–French industry codes, equal to 1 to 5. We winsorized *LEVERAGE* to make it less than 1.00, and winsorized *BOOK–MARKET* to make it less than 4.00. To test whether the mean (median) values were significantly different, we relied on the *t*-test (Wilcoxon rank-sum test). T-statistics and Wilcoxon rank-sum statistics are in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

Table 6. Stock performance of U.S.-listed companies after controlling for the Fama–French risk factors.

	Measurement Periods		
	Pre-HFCAA	**HFCAA Legislative**	**HFCAA Effective**
ALPHA	0.0034 (2.26) **	−0.0017 (−4.63) ***	−0.0018 (−3.03) ***
MARKET	0.0004 (0.22)	−0.0004 (−2.02) **	0.0000 (0.06)
SMB	0.0037 (0.99)	0.0023 (4.50) ***	0.0071 (9.03) ***
HML	−0.0023 (−0.82)	−0.0012 (−4.15) ***	−0.0027 (−4.99) ***
Observations	59	437	424
Adjusted-R^2	2.68%	7.01%	25.90%

This table reports the estimated coefficients (and the associated t-statistics in parentheses) from the Fama–French three-factor model using the *CHINESE* sample. *CHINESE* includes companies domiciled in mainland China and Hong Kong. We estimated this model for three periods: Pre-HFCAA (1 January to 27 March 2019), HFCAA Legislative Period (28 March 2019 to 17 December 2020), HFCAA Effective Period (18 December 2020 to 25 August 2022). *MARKET* is the excess return on the stock market, *SMB* is the average return on the three small portfolios minus the average return on the three big portfolios, and *HML* is the average return on the two value portfolios minus the average return on the two growth portfolios. To test whether mean (median) values were significantly different, we relied on the *t*-test (Wilcoxon rank-sum test). T-statistics and Wilcoxon rank-sum statistics are in parentheses. ***, and ** indicate significance at the 1% and 5% level, respectively.

To understand whether there was any reversal in stock performance of Chinese companies following the agreement between the U.S. and Chinese regulators in August 2022, we examined whether Chinese companies underperformed for the entire period beginning with the HFCAA Legislation Period until 31 December 2022, four months after the bilateral agreement. As Table 7, Panel A, reports, the mean (median) values indicate that the mean (median) buy-and-hold stock returns, *CRETs*, for Chinese and other Asian companies had values of −45.88% (−76.22%) and 14.68% (10.53%), respectively. For the entire period, the stock performance of Chinese companies was lower than the stock performance of other Asian companies by about 61% (87%). Once we controlled for various risk metrics in Panels B and C, we continued to find evidence indicating that Chinese companies underperformed compared to other Asian companies.

Table 7. Stock performance for the combined period (28 March 2019 to 31 December 2022).

	N	Mean	Median
Panel A: Stock Returns			
CHINESE	111	−0.4588	−0.7622
OTHER-ASIAN	30	0.1468	0.1053
Difference		−0.6056	−0.8675
(t-z stat)		(−4.62) ***	(−4.86) ***
Panel B: Stock Returns After Controlling for Risk			
ALPHA		−0.1708 (−0.63)	
CHINESE		−0.6411 (−4.27) ***	
BETA		0.5254 (2.37) **	
LEVERAGE		0.2102 (0.67)	
BOOK–MARKET		0.0034 (0.05)	
FFI		−0.0237 (−0.56)	
N		141	
Observations			
Adjusted-R^2		12.96%	
Panel C: Stock Returns After Controlling for Fama–French Risk Factors			
ALPHA	−0.0016 (−4.67) ***		
MARKET	−0.0000 (−0.18)		
SMB	0.0054 (11.52) ***		
HML	−0.0025 (−8.87) ***		
N	949		
Observations			
Adjusted-R^2	18.47%		

This table reports the stock performance of Chinese companies for the combined Pre-HFCAA, HFCAA Legislative, HFCAA Effective, and post-HFCAA periods. *CHINESE* includes companies domiciled in mainland China and Hong Kong. *OTHER-ASIAN* countries include India, Japan, South Korea, Malaysia, Taiwan, and Thailand. Panel B reports the mean/median buy-and-hold raw stock returns (*CRETs*). Panel B reports the stock performance (*CRET*) results after controlling for risk factors for Chinese companies. The risk proxies include *BETA* (estimated from the market model using daily stock returns from 1 January to 31 December 2018, Pre-HFCAA), *LEVERAGE* (ratio of total debt to total assets), *BOOK–MARKET* (ratio of the book value of equity to the market value of equity), and FFI (Fama–French five industry codes). Panel C reports the stock performance results for Chinese companies after controlling for Fama–French risk factors. *MARKET* is the excess return on the stock market, *SMB* is the average return on the three small portfolios minus the average return on the three big portfolios, and *HML* is the average return on the two value portfolios minus the average return on the two growth portfolios. To test whether the mean values were significantly different (Panel A), we used the *t*-test. To test whether the median values were different, we relied on Wilcoxon rank-sum test. The t-statistics and Wilcoxon rank-sum statistics are in parentheses. *** and ** indicate significance at the 1% and 5% level, respectively.

5.3. Robustness Test

While we relied on a sample of U.S.-listed Chinese companies during our sample period (1 January 2019 to 31 December 2022), the sample size varied as new firms became listed on a U.S. stock exchange or as some firms were delisted or acquired by other companies during the sample period. To account for the differences in the sample size across the different tests, we also repeated our analyses using a sample of U.S.-listed Chinese firms that remained constant for our entire sample period. We identified a total of 101 U.S.-listed Chinese companies and 30 other U.S.-listed Asian companies with available stock return data from CRSP for our sample period (2019 to 2022). For the robustness test, we repeated our short- and long-term performance analyses using this constant sample.

For our short-term performance tests (event analysis), the mean *CAR*1 and *CAR*2 for five key dates were similar to those reported in Table 2. In particular, *CAR*1 and *CAR*2 were positive and statistically significant for all five key dates except for 20 May 2020 and 2 December 2020.

For the long-term performance tests, we compared the buy-and-hold stock returns between U.S.-listed Chinese companies and other Asian companies and ran OLS regressions, controlling for risk factors for each of the four periods. Consistent with the tabulated long-term stock performance results, our test results show that Chinese companies continued

to outperform other Asian firms for the Pre-HFCAA Period, underperforming compared to other Asian firms from the time the HFCAA was introduced until an agreement was reached. For the post-agreement period, the performance of Chinese and other Asian stocks was not statistically distinguishable.

6. Conclusions

Until recently, the PCAOB has been unable to inspect the audits completed by Chinese audit firms of U.S.-listed Chinese companies because of the absence of a bilateral agreement between PCOAB and Chinese regulators. One concern was that the lack of PCAOB inspections would erode the financial reporting quality of U.S.-listed Chinese companies, thereby posing a serious risk to U.S. investors. In response, U.S. regulators began discussions to delist Chinese companies in the absence of PCAOB inspections. We analyzed the economic cost to U.S. investors for the period there was a material likelihood of U.S.-listed Chinese companies being delisted.

We found that just prior to any regulatory initiative to consider delisting, U.S.-listed Chinese companies outperformed other U.S.-listed Asian companies. However, once the U.S. Senate began discussions to introduce legislation that would delist Chinese companies in the absence of PCAOB inspections (March 2019) until the PCAOB and Chinese regulators reached a bilateral agreement to allow PCAOB inspections (August 2022), U.S.-listed Chinese companies underperformed compared to other U.S.-listed Asian companies by more than 50%. These results are robust in terms of controlling for conventional risk proxies based on firm characteristics and Fama–French risk factors. Following the bilateral agreement, the stock performance of Chinese companies was comparable to that of other Asian companies or the Shanghai Index. Therefore, the loss to U.S. investors incurred between March 2019 and August 2022 was not reversed following the inspection period.

Our research makes a valuable contribution to the existing literature by focusing specifically on Chinese firms among U.S.-listed foreign firms. Prior studies highlight the benefits of cross-listing for foreign firms, such as enhanced visibility, higher liquidity, and the reduced cost of capital (Hail and Leuz 2009; Doidge et al. 2004; Reese and Weisbach 2002). However, our research shows that the regulatory challenges specific to Chinese firms can significantly alter these benefits. Our findings align with those of Bushman et al. (2004) and Karpoff and Lott (1993), who underscore the penalties firms face for regulatory non-compliance. The substantial underperformance of U.S.-listed Chinese firms during the HFCAA period underscores the significant costs of non-compliance with PCAOB inspections. These findings are also consistent with those of Jain and Rezaee (2006), who noted the market's negative reaction to firms that fail to comply with regulatory standards. The economic costs to U.S. investors, highlighted by the dramatic underperformance of Chinese stocks during the HFCAA Legislative and Effective periods, reflect the market's concerns over potential delisting and poor audit quality. This study also supports the notion presented by MacKinlay (1997) and Barber and Lyon (1997) that regulatory announcements can significantly influence investor perceptions and stock prices.

By examining the impact of PCAOB regulations on Chinese firms, our study fills a gap in the auditing and regulation literature and provides insights essential for policymakers, regulators, investors, and Chinese firms. For policymakers and regulators, understanding the stock markets' response to potential delisting allows them to better anticipate and mitigate the risks associated with non-compliance, helping to stabilize capital markets and protect investors. For investors, our research underscores the risks of regulatory non-compliance and investing in companies facing regulatory uncertainties. For Chinese firms, to maintain investor confidence and avoid delisting, they must comply with U.S. regulatory standards, which they do now.

While this study provides valuable insights into the economic impact of PCAOB regulations on U.S.-listed Chinese companies, our study is subject to several limitations. First, the data used in this study were limited to a specific period from 1 January 2019 to 31 December 2022. This temporal constraint may affect the generalizability because of factors

unique to this time period. Second, the study primarily focused on Chinese companies listed on U.S. stock exchanges and did not consider other potentially relevant variables such as political factors, macroeconomic conditions, or industry-specific dynamics. Third, the methodologies employed, such as the event study and the Fama–French three-factor model, have their inherent limitations, which could influence the inferences.

Ultimately, our findings emphasize the significance of regulatory compliance, transparency, and the role of regulatory bodies like the PCAOB in maintaining investor confidence and safeguarding shareholders' interests. As Chinese firms continue to navigate the regulatory landscape, it is imperative to recognize and address the challenges and consequences associated with regulatory compliance, ultimately to foster a more robust and resilient global financial market. Future research could extend our analysis to longer time periods, including more recent data to validate our findings. It would also be beneficial to incorporate additional variables that may impact stock performance, such as political stability, economic policies, and industry-specific trends.

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Conflicts of Interest: The authors declare no conflicts of interest.

Notes

1 Established by Congress under the Sarbanes–Oxley Act of 2002, the PCAOB is charged with overseeing the audits of public companies to protect investors and further the public interest in the preparation of informative, accurate, and independent audit reports.

2 On 18 December 2020, the HFCAA became law (No.: 116–22). Under the HFCAA, any firm that remains a "Commission-Identified Issuer" for three years in a row would have its securities barred from trading on U.S. exchanges. Further, under the HFCAA, Chinese companies are obligated to disclose whether they are owned or controlled by a foreign government and are to provide greater transparency regarding their corporate governance structures.

3 A Chinese rival to Starbucks, Luckin Coffee raised nearly a billion dollars through debt and equity issuances in the U.S. in 2019. According to the Securities and Exchange Commission (SEC 2020) complaint, between April 2019 and January 2020, "Luckin Coffee intentionally fabricated more than $300 million in retail sales by using related parties to create false sales transactions through three separate purchasing schemes. Some employees at the company attempted to conceal the fraud by inflating the company's expenses by more than $190 million, creating a fake operations database, and altering accounting and bank records to reflect the false sales". Following these disclosures, the company's stock price fell by around 80%.

4 https://www.congress.gov/bill/116th-congress/senate-bill/945/actions (accessed on 5 August 2024).

5 https://www.uscc.gov/research/chinese-companies-listed-major-us-stock-exchanges (accessed on 5 August 2024).

6 https://stockmarketmba.com/nonuscompaniesonusexchanges.php (accessed on 5 August 2024).

7 https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html (accessed on 5 August 2024).

8 The three factors are constructed using the six value-weighted portfolios formed on size and book-to-market ratio. MARKET ($R_{Mt} - R_{Ft}$) is the excess return on the market. SMB (Small minus Big) is the average return on the three small portfolios minus the average return on the three big portfolios. HML (High minus Low) is the average return on the two value portfolios minus the average return on the two growth portfolios.

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