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**CROSS-LISTING, HOST COUNTRY INSTITUTIONS, AND  
FIRMS' CSR PERFORMANCE**

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**MPhil**

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**The Hong Kong Polytechnic University**

**School of Accounting and Finance**

**Cross-listing, Host Country Institutions, and Firms' CSR  
Performance**

**Lei Li**

**A thesis submitted in partial fulfilment of the requirements for the  
degree of Master of Philosophy**

**May 2022**

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# **Cross-listing, Host Country Institutions, and Firms' CSR Performance**

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## **ABSTRACT**

In this paper, we examine whether and how the CSR performance of U.S. firms is impacted by the institutional characteristics of host countries following the cross-listing of their securities in foreign countries (i.e., cross-listing host countries). Employing a difference-in-differences analysis, we find that U.S. firms cross-listed in foreign countries tend to exhibit improved CSR performance compared with their U.S. non-cross-listed counterparts. Through the use of cross-sectional analyses, we find that the CSR performance of U.S. firms cross-listed in foreign countries varies positively with the host countries' level of CSR awareness and stakeholder embeddedness. Further analysis suggests that if the cross-listed firms have a greater level of foreign revenue, the relationship between country-level institutions and the CSR performance of U.S. firms cross-listed in foreign countries, is stronger. This is also the case for firms with a higher level of customer awareness. Overall, the findings of this study lend support to the stakeholder learning hypothesis.

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## Table of Contents

CERTIFICATE OF ORIGINALITY .....	ii
Cross-listing, Host Country Institutions, and Firms' CSR Performance .....	iii
ABSTRACT.....	iii
ACKNOWLEDGEMENT .....	iv
1. Introduction.....	1
2. Literature review and hypothesis development .....	7
3. Sample and variables .....	13
3.1 Sample.....	13
3.2 Main variables.....	14
3.3 Control variables .....	14
3.4 Descriptive statistics and correlation matrix.....	15
4. Research design and main results .....	15
4.1 Research design .....	15
4.2 Cross-listing and CSR performance.....	16
4.3 The effect of institutions .....	17
4.4 Robustness tests .....	20
5. Additional Analysis .....	21
5.1 CSR sub-dimensions.....	21
5.2 Financial motivation .....	21
5.3 Cross-listing and CSR disclosure.....	22
6. Conclusion .....	22
References.....	24
Appendix 1 Variable Definitions .....	29

## 1. Introduction

Cross-boarder listing is recognized as one of the best ways to raise capital and it has increasingly become a pervasive business practice for publicly traded companies. As of 2021, the number of cross-listed firms is 5097, taking for nearly 9% of public companies around the world (World Federation of Exchanges, 2021<sup>1</sup>). Corresponding to its popularity, cross-listing has attracted extensive attention to investigate its impact on market valuation (Doidge et al., 2004), financial performance (Lel and Miller, 2008), non-financial practices (Boubakri et al., 2016), and other corporate behaviors (Burn et al., 2017; Abed and Abdallah, 2019).

To date, the cross-listing literature is largely dominated by a focus on foreign firms' cross-border activities in U.S. exchanges (e.g., American depository receipts). Very little attention is paid to the impact of overseas listing by U.S. companies, which actually accounts for the largest proportion of global cross-listing (Chen et al., 2015). The small number of papers that do examine U.S. firms' cross-listing are concentrated on financial issues (Eng et al., 2008; Howe and Kelm, 1987) while the evidence on non-financial outcomes remains scarce. Therefore, in this paper, we aim to investigate whether and how U.S. firms' cross-listing activities affect their corporate social responsibility (CSR) performance. In particular, by focusing on a specific home country—the U.S.—we explore the direct effects of host country institutions on the behavior of cross-listed entities.

A predominant view in the cross-listing literature suggests that the primary benefits of dual listing come from the improvement in corporate governance, as cross-listed firms are subject to stricter legal and regulatory environments in the host markets (e.g., U.S. exchanges). This idea is referred to as the bonding theory (Coffee, 1999; Stulz, 1999). Supporting this notion, Charitou et al. (2007) find that, after cross-listing, companies are more likely to improve their

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<sup>1</sup> The 2021 Annual Statistics Guide is available at <https://www.world-exchanges.org/our-work/articles/2021-annual-statistics-guide>.



corporate governance by increasing the number of independent directors and audit committee members.

Nevertheless, the improvement in corporate governance following cross-listing is not universal, which should be conditional on the legal and regulatory systems of the home country. Lel and Miller (2008) note that the positive effect of cross-listing on corporate governance is mainly concentrated in firms whose home country investor protection is relatively weak, while the effect is statistically not significant for firms with strong home country investor protection. As the legal and regulatory standards of U.S. stock markets are widely considered to be the most stringent globally (Ball et al., 2000; Leuz, 2003), U.S. firms are arguably less likely to increase their corporate governance after cross-listing abroad. Considering the well-documented positive correlation between corporate governance and CSR (Harjoto and Jo, 2011; Liao et al., 2019), cross-border listings conducted by U.S. companies may not have a significant impact on their CSR performance.

In contrast, the liability of foreignness theory (LOF) argues that due to the institutional and cultural differences between domestic and host countries, cross-border listings do not necessarily bring benefits, but may instead incur significant costs (Bell et al., 2012; Licht, 2004). These costs may manifest themselves as higher costs of capital, lower liquidity of securities, and stricter regulatory requirements in the host markets (Gu et al., 2019). For example, Liu et al. (2017) provide evidence that firms cross-listing shares abroad exhibit a decreased market value compared with their non-cross-listed counterparts.

Under this scenario, we conjecture that the cross-listed U.S. firms would improve their CSR performance to minimize the costs derived from LOF. As documented in the literature, CSR is an effective method to obtain business legitimacy among stakeholders (Bansal and Clelland, 2004; Castello and Lozano, 2011) and to establish a positive corporate image (Stanaland et al., 2011; Aguilera et al., 2007). By increasing their CSR performance, cross-listed

firms are able to acquire the endorsement and favorability of the stakeholders in the host markets, thereby minimizing the competitive disadvantages caused by LOF.

To empirically explore the relationship between the cross-listing of U.S. firms and their CSR performance, we use a comprehensive cross-listing database covering all U.S. publicly traded firms to identify specific cross-listing years (Chen et al., 2015). We calculate the CSR score for each firm-year using ratings from the MSCI ESG KLD STATS database. Then, we combine these measures of firms' CSR performance with cross-listing data, financial data, and national culture data to build a sample of 44028 firm-year observations, of which 15,520 are cross-listing observations, representing 1,406 firms in the sample.

We first conduct a firm-level analysis to examine the impact of cross-listing on CSR by using a difference-in-differences (DID) framework, in which we control for industry- and year-fixed effects and cluster standard errors by firm. By comparing the difference between a treatment group of cross-listed firms and a control group of non-cross-listed domestic firms, we find that, following cross-listing, CSR performance significantly increases for the treatment firms. The results are consistent with the hypothesis that, after cross-listing, U.S. firms are more likely to use CSR engagement as an strategy to overcome LOF. The economic impact of CSR is significant: compared with non-cross-listed firms, the CSR performance of cross-listed firms increases by 0.33 from the pre-listing level. This finding suggests that the cross-listing practice of U.S. firms positively affects their CSR performance.

We next explore the institutional implications of the host country on cross-listed firms' CSR performance. As the old saying goes, do as the Romans do, which means that outsiders adapt themselves to the new environment by learning local culture and customs. Empirically, Foucault and Frésard (2012) as well as Del Bosco and Misani (2016) have documented a learning effect of cross-listed firms in the host markets. Given the different cultural

characteristics of the cross-listing destinations, we expect the CSR performance of cross-listed U.S. firms may vary across host countries.

Employing Schwartz's (1994) national culture framework, we examine how different levels of mastery, hierarchy, and embeddedness in the host country affect cross-listed firms' CSR. In line with our hypothesis, we find that embeddedness—which captures the degree to which individuals are embedded in a collective society—has a positive influence on the CSR activities of cross-listed firms. The results remain unchanged when using alternative measures of Hofstede's (1980) culture dimensions.

In addition, to draw a full picture of the institutional implications of the host country and to prove the validity of the effect of national culture, we add additional informal institutions (religion and social trust) and formal institutions (investor protection) to conduct a horse racing analysis. In particular, we include mandatory CSR disclosure requirements, which may have a direct influence on cross-listed firms' CSR performance. As expected, the results show that cross-listed firms in countries with mandatory CSR disclosure requirements have higher CSR scores than those cross-listed in countries without CSR disclosure mandates. Nevertheless, the level of embeddedness still positively affects cross-listed firms' CSR performance, while other institutions exert little impact. Through subsample analysis, we find that the effect of country-level institutions on the CSR performance of U.S. firms cross-listed in foreign countries is stronger for firms with higher foreign revenue and for firms with a higher level of customer awareness, supporting a stakeholder learning effect.

Then, to mitigate the concern that the effect of cross-listing on CSR performance may be spurious due to heterogeneity between cross-listed and non-cross-listed firms, we conduct a firm-to-firm propensity-score-matching (PSM) to control for the differences. For each cross-listed firm, we match a non-cross-listed control firm based on firm characteristics that are likely to be associated with cross-listing in the pre-cross-listing year, and then re-estimate the baseline

regression. The results remain consistent with those from the baseline test. In addition, our results are robust to the alternative measurement of CSR performance, samples excluding financial and utility industries, and restricted event window (i.e., 3 years around cross-listing).

In additional tests, we further investigate the effect of cross-listing on CSR sub-dimensions and the financial motivation behind CSR improvement after cross-listing. We find that cross-listed U.S. firms are more likely to exhibit better CSR performance in employee, environment, human rights and product quality dimensions. Notably, the improvement in CSR is mainly from the decrease in CSR concerns rather than increased CSR strengths, suggesting that cross-listing restrains unethical corporate behaviors. Moreover, we find that better CSR performance help to mitigate the negative financial consequences after cross-listing, which is consistent with our LOF hypothesis that U.S. cross-listed firms improve their CSR performance to mitigate LOF. Finally, we also examine the impact of cross-listing on CSR disclosure but find no evidence.

This paper contributes to the literature in several ways. First, it contributes to the body of studies examining the determinants of firms' CSR activities. Specifically, in demonstrating that cross-listing encourages such investments, particularly those reducing CSR concerns, this paper builds on and expands previous research that tries to identify factors affecting corporate policies in terms of social goodness. Second, it contributes to the literature on the impact of cross-listing on firms' decision-making. While most studies focus on economic outcomes and cross-listing by non-U.S. firms, evidence of the impact of cross-listing on U.S. firms is scarce. Using a comprehensive international cross-listing database from Chen et al. (2015), this paper complements this line of research by examining the relationship between U.S. firms' cross-listing and their CSR performance.

This paper also contributes to the literature that examines the important role of country-level institutions on firm performance. Here, we complement studies examining the institutional

implications that make clear how important a society's institutions are for a range of economic outcomes (Campbell, 2007). While studies mainly focus on the effect of national institutions on domestic firms, the results remain inconsistent and, consequently, little is known about whether cross-listed firms can be affected by the institutions of host countries. In this paper, we demonstrate that host countries pass on these institutional attributes to cross-listed firms through the stakeholder learning process. In particular, our results suggest that institutional characteristics have a real social impact through the CSR performance of cross-listed firms.

This paper is related to two studies that examine cross-listing and CSR: Boubakri et al. (2016) and Del Bosco and Misani (2016). The study of Boubakri et al. (2016) investigates the relationship between ADR and CSR, while that of Del Bosco and Misani (2016) provides international evidence. Both find a positive association between cross-listing and CSR but some of the supporting evidence could be mutually exclusive. For example, Del Bosco and Misani (2016) document a negative link between the host country's investor protection and cross-listed firms' CSR. This contradicts the theoretical basis of Boubakri et al. (2016), who argue that the positive association between cross-listing and CSR is an outcome of the stricter legal and regulatory environment of the host country. One reason for this inconsistency may be sample heterogeneity, as both studies use firms from around the world as the full sample. Consequently, there may be significant heterogeneity at the country and company levels, which could bias the results. In contrast, our sample focuses on U.S. firms only, avoiding concerns relating to any country and firm level heterogeneity that could affect the effects of cross-listing. In addition, studies document the importance of home country institutions in corporate behaviors post-cross-listing (Burns et al., 2007). Therefore, the focus on U.S. firms helps to minimize the effects of home country institutions and enables us to better identify the impact of foreign country institutions. Moreover, the inclusion of a variety of country-level institutions can contribute to the generation of more credible results.

The remainder of the paper is organized as follows. Section 2 discusses the related literature and develops the hypotheses; Section 3 describes the sample construction and the variables. Sections 4 and 5 present the main results, followed by additional results. Section 6 presents our conclusions.

## **2. Literature review and hypothesis development**

The costs and benefits of cross-listing have long been discussed in the literature (Licht, 2004). On the one hand, scholars believe that cross-listed firms could benefit from increased corporate governance by committing themselves to a stricter legal environment, which is referred to as the bonding theory (Coffee, 1999; Stulz, 1999). On the other hand, cross-listing activities may bring about considerable costs deriving from the differences in institutions and cultures between home and host markets, an argument known as the liability of foreignness theory (Licht, 2004; Bell et al., 2012). Even though both concepts are plausible in theory, they may have different effects on the CSR performance of U.S. firms cross-listed abroad.

The bonding theory suggests that firms can improve their corporate governance by cross-listing their shares on a better-regulated market (e.g., U.S. stock exchanges) and substitute these mechanisms for weak home country governance practices (Coffee, 1999; Stulz, 1999). Globally, the U.S. stock markets are known for their high level of legal regulations and enforcement, stricter accounting standards, tougher disclosure requirements, and a sophisticated court system to facilitate an effective corporate governance system, offering investors a more robust system and protective environment than most other markets worldwide.

Benefiting from the improvement in corporate governance, foreign firms cross-listed in the U.S. have been found to gain a variety of positive outcomes compared with their non-cross-listed counterparts. For example, Doidge et al. (2004) find that investors reward cross-listed companies with higher market valuations because of their improved corporate governance post cross-listing. In addition, foreign firms cross-listed in the U.S. have lower cost of capital (Hail

and Leuz, 2009), better information environments (Bailey et al., 2006), lower voting premiums (Doidge, 2004), better access to external finance (Lins et al., 2005; Reese and Weisbach, 2002), and better CSR performance (Boubakri et al., 2016).

However, the aforementioned benefits might not be applicable to U.S. firms cross-listed overseas as they are less likely to improve their corporate governance after cross-listing. As mentioned earlier, U.S. exchanges are equipped with a well-established legal environment and well-functioning corporate governance systems. Even compared with the London stock exchange, which is considered to become more competitive in attracting foreign listings than New York, U.S. markets still have unique governance benefits (Doidge et al., 2009). Therefore, it is unlikely that U.S. firms would increase their corporate governance after cross-listing abroad and the cross-listing benefits resulting from improved governance might not exist. For example, Howe and Kelm (1987) provide evidence that overseas listings of U.S. firms fail to increase shareholder wealth. Eng et al. (2008) find that the cross-listing benefits documented in previous studies for foreign firms cross-listed in the U.S. cannot be generalized to cross-listed U.S. firms. They ascribe this finding to the strong disclosure and regulatory environment prevalent in the U.S.

In such a case, we expect that the cross-listing of U.S. firms will not have any significant impact on their CSR performance since they are less likely to improve their corporate governance through cross-listing. As documented in the literature, a firm's corporate governance is positively correlated with the level of CSR. For example, Jo and Harjoto (2011) explicitly show that corporate governance has a causal effect on CSR performance. Employing a DID analysis, Liao et al. (2019) find a significant increase in CSR performance following a worldwide corporate governance reform. Therefore, if the cross-listing benefits stem mainly from enhanced corporate governance, then we arguably should not observe any significant change in U.S. firms' CSR performance after cross-listing.

Despite appealing, the validity of the bonding theory has been questioned. Licht (2003) argues that the bonding theory is only true in theory, as he finds evidence that cross-listed firms can (and do) easily exempt themselves from the corporate governance listing requirements faced by host companies. Moreover, Durnev and Kim (2005) provide direct evidence that there is a lack of correlation between cross-listing and investor protection. In particular, Liu et al. (2017) find that cross-listed firms exhibit lower valuations than non-cross-listed domestic counterparts. They conclude that their findings contradict the bonding theory but are consistent with the liability of foreignness theory (LOF).

The concept of LOF originates from the product market and then extends to the capital market, referring to the additional costs faced by multinational/cross-listed enterprises after entering foreign markets (Zaheer, 1995; Zaheer and Mosakowski, 1997; Bell et al., 2012). Different from the traditional cross-listing theory, LOF points out that the cross-listing activity may not necessarily lead to benefits (Licht, 2004). Instead, it may occur significant costs for firms due to the differences in institutions and cultures between home and host markets (Bell et al., 2012). For example, through investigating the delisting reasons of German cross-listed firms, Bessler et al. (2012) find that the costs of complying with host countries' institutions are an important driving force. In addition, as new players in the host market, cross-listing securities might not be favored by host investors and other stakeholders because they are reluctant to follow and invest in unfamiliar stocks (Merton, 1987). Accordingly, cross-listed firms may experience higher costs of capital, lower liquidity of securities, or even stricter regulation of the host markets (Gu et al., 2019).

To mitigate the extra costs resulting from the LOF and increase host investors' familiarity with their securities, firms cross-listed abroad need to take action to signal their quality to stakeholders in the host markets. One important approach is to legitimize their local presence through socially responsible activities. For instance, Mithani (2017) finds that social



philanthropy can help overcome LOF by increasing multinational enterprises' business legitimacy. In the same vein, Marano et al. (2017) document a positive association between institutional voids and CSR reporting. They argue that CSR reporting is an effective strategy to alleviate LOF because it conveys to host countries' stakeholders their commitment to global norms and expectations. Del Bosco and Misani (2016) also emphasize the importance of CSR to LOF mitigation.

Besides, CSR is an effective reputation-building method (Stanaland et al., 2011; Aguilera et al., 2007). McWilliams et al. (2006) find that CSR investments help firms generate a positive image of caring for social good and environmental protection. This image supports the creation of reputational capital and extends organizational networks (Fombrun and Van Riel, 1997). By improving CSR performance, cross-listed firms are able to gain a good reputation among host countries' stakeholders, thereby increasing corporate image. Therefore, based on the above discussion, we conjecture that U.S. firms cross-listed abroad would improve their CSR performance to obtain the endorsement and favorability of the stakeholders in the host markets.

Taken together, the bonding theory and the LOF theory suggest it is unclear whether cross-listing of U.S. firms would lead to higher CSR performance. As both views are plausible, our hypothesis is stated in null form:

*Hypothesis 1: The cross-listing of U.S. firms does not affect their CSR performance.*

Prior studies have documented a learning effect after firms enter foreign markets (Foucault and Gehrig, 2008; Foucault and Frésard, 2012). To overcome the institutional and cultural barriers, these new players would learn from the host markets and imitate their practices (Wu and Salomon, 2016). For example, Del Bosco and Misani (2016) propose that the investor protection regimes of host countries affect cross-listed firms' CSR performance. We therefore expect the CSR performance of cross-listed firms may vary across host countries characterized with different institutions.

As the most important component of a country's institutions, national culture determines what is considered appropriate social decision-making and behaviors in a country (North, 1990), which has long been recognized as the driving force of CSR. Nevertheless, different culture may have distinct effects on firm's CSR performance (Griffin et al., 2021). Specifically, managers of cross-listed firms may increase CSR investments if CSR-prone cultural values are dominant in the host country, as CSR investments may be highly valued by host stakeholders (Cheung et al., 2020). For example, investors with CSR-prone cultural values may place greater weight on a firm's CSR performance when evaluating its portfolios. In such a case, cross-listed firms may further their CSR performance to attract more investors in host markets. In contrast, CSR performance might be adversely affected if U.S. firms cross-list in countries where prevailing cultural values contradict the prosocial nature of CSR.

To empirically investigate this issue, we focus on one cultural dimension from three pairs of opposite values in Schwartz's (1994) national cultural framework: mastery, hierarchy, and embeddedness. Mastery refers to getting ahead through active self-assertion to master, change, and exploit the natural and social environment (Licht et al., 2007). Societies with high levels of mastery are characterized by values of ambition, independence, and success. Such cultural value encourages the adoption of aggressive policies to realize individual success. In a country with high mastery culture, individuals may pursue economic success at the expense of social welfare and environmental development. Furthermore, as surviving competition and financial performance take precedence in a high mastery society, stakeholders may allow unethical business practices, which can eventually lead to public indifference to socially irresponsible behavior. As a result, U.S. firms cross-listed in countries with high levels of mastery may have lower CSR performance than firms cross-listed in low mastery countries.

Hierarchy refers to the legitimacy of the hierarchical role and resource allocation. In a high hierarchical society, power is concentrated in the hands of a few privileged individuals, and

those in charge are rarely challenged by others. Studies find that superior members of such societies are more likely to abuse their power for the pursuit of personal benefits (Carl et al., 2004). A high hierarchical society is thus less responsive to demands from subordinates such as employees, communities, and the public, which may lead to less CSR involvement. In contrast, a low-hierarchy society seeks to inspire the public to recognize each individual as a moral equal. Members are socialized to internalize a commitment to cooperation and concern for the well-being of others (Siegel et al., 2011). Therefore, compared with firms cross-listed in low-hierarchy countries, firms cross-listed in high hierarchical countries tend to exhibit lower CSR performance.

Embeddedness captures the degree to which individuals are embedded in a collective society (Schwartz, 1994). Embeddedness involves several important social norms that may positively affect CSR performance. First, it emphasizes the preservation of one's public image and security. As such, high CSR performance tends to make a better impression in countries with high embeddedness, as low CSR may be perceived as an indicator of a poor corporate image, which is contrary to the spirit of embeddedness. Moreover, the maintenance of harmonious working relationships is a crucial value in countries with high embeddedness. As a result, firms cross-listed in these countries may learn to care more about the interests of stakeholders than those in low-embeddedness countries. This cross-border learning effect may be reflected in higher CSR performance. Furthermore, embeddedness emphasizes self-discipline; any wrongdoing might induce penalties and boycotts. Therefore, to gain legitimacy in host markets, cross-listed firms may reduce their socially irresponsible activities, which, in turn, may contribute to higher CSR performance.

Based on the above discussion, we expect national culture as a whole may exert different influence on the CSR performance of U.S. firms cross-listed abroad. Thus, we state our second hypothesis as follows:

*Hypothesis 2: The association between U.S. firms' cross-listing and their CSR performance varies with the national culture of the host markets.*

### **3. Sample and variables**

#### **3.1 Sample**

We construct our sample using several data sources. International cross-listing data are obtained from Chen et al. (2015), which includes information on foreign equity listings for companies in the Standard and Poor's (S&P) Capital IQ (CIQ) database. Following Tsang et al. (2021), we keep all observations incorporated in the U.S. and drop those listed over the counter (OTC). The focus on U.S. firms not only helps mitigate country- and firm-level heterogeneity issues, but also enables us to better observe the institutional effects of the host country on the behavior of cross-listed firms.

Data on CSR performance are taken from the MSCI ESG KLD STATS database (henceforth KLD). KLD collects information from media coverage, company disclosures, non-governmental organizations, and government filings to facilitate the measure of firms' social, environmental, and governance performance. Each firm is assessed on its strengths and weaknesses along seven dimensions: workforce diversity, community, environment employee relations, product quality, human rights, and corporate governance. A firm is given one point for strengths (weaknesses) if it performs a socially good (bad) deed within a specific dimension. Our sample period is from 1991 to 2018 because KLD started providing CSR ratings in 1991 and the most recent data are only available up to 2018.

We merge our sample of CSR and cross-listing data with financial statement variables from Compustat, and various country-level institutional data from a variety of studies. Appendix A provides detailed information. After excluding observations with missing values for the variables in our regressions, our final sample consists of 44028 firm-year observations, of which 15,520 are cross-listing observations, representing 1,406 firms in the sample.

### 3.2 Main variables

To construct a firm's annual CSR score, we subtract the total number of concerns from the total number of strengths in the following six dimensions: community, workforce diversity, employee relations, environment, human rights, and product quality<sup>2</sup>. In addition, we construct an additional CSR score as the alternative measure to mitigate the industry effect. Adjusted CSR scores (*Adj\_CSR*) are measured as annual CSR scores adjusted by the industry median, which allows for cross-industry comparison.

Following Chen et al. (2015) and Tsang et al. (2021), we construct *CL* as the independent variable, which is an indicator variable equal to one if a firm is cross-listed in at least one foreign exchange in year *t*, and zero otherwise. In addition, we add *CL\_firm* to facilitate the staggered DID analysis, which is an indicator variable equal to one if a firm is cross-listed during the sample period at any time, and zero otherwise.

### 3.3 Control variables

We include various control variables that can affect firm CSR performance. Firm age (*Age*) and size (*Size*) are controlled as older and larger firms face greater pressure and have more resources to engage in CSR activities (Wu, 2006). Firm performance is proxied by profitability (*ROA*), market-to-book ratio (*MTB*), and sales growth (*Sale\_growth*). They are controlled as companies with better financial performance tend to exhibit higher levels of CSR involvement (Adams and Hardwick, 1998; Campbell, 2007). We also control for firm leverage (*Leverage*), capital expenditure (*CAPX*) and capital intensity (*PPE*), as firms with lower risk usually conduct more CSR activities (Orlitzky and Benjamin, 2001). R&D (*RDExp*) and advertising expenditures (*ADExp*) are controlled because these two investments facilitate firms' CSR involvement (Wieser, 2005). Besides, we further control for institutional investors (*Inst*) and

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<sup>2</sup> Following the common practice in the CSR literature, when constructing the CSR scores, we exclude the corporate governance dimension from the calculations as it is commonly viewed as a distinct construct from the other six dimensions (Hong et al., 2012; Servaes and Tamayo, 2013).

interest expenses (*Interest*) that are documented to be significantly related CSR performance (Dyck et al., 2019). All continuous variables are winsorized at the 1st and 99th percentiles to reduce the influence of outliers. See appendix A for more detailed variable definitions.

### **3.4 Descriptive statistics and correlation matrix**

Table 1 provides the descriptive statistics for the full sample. Our sample statistics for CSR performance measures—*CSR* and *Adj\_CSR*, are consistent with those in the literature (Tsang et al., 2020). The mean value of *CSR* is 0.287, suggesting that, on average, the sample firms have more CSR strengths than weaknesses. In our sample, 35.3% of firm-year observations have cross-listing experience, showing that cross-listing outside U.S. is not rare nor restricted to a limited number of firms. The mean value of *CL* is 11.4%, indicating that 11.4% of the firm-year observations have at least one secondary security listed and traded in a foreign country.

*[Table 1 here]*

The correlation matrix is presented in Table 2. All of the CSR performance measures are positively related to our cross-listing variables. The correlation coefficients between *CSR* and *CL* and *CL\_firm* are 0.14 and significantly different from zero at the 1% level, suggesting that cross-listed U.S. firms have better CSR performance than non-cross-listed domestic firms. Other firm-level characteristics have a significant correlation with our CSR performance measures, indicating the importance of controlling for them in the regressions. In addition, the three national culture values—*Embeddedness*, *Mastery*, and *Hierarchy*—are all significantly related to *CSR*, providing preliminary support for institutional implications.

*[Table 2 here]*

## **4. Research design and main results**

### **4.1 Research design**

To investigate the effect of cross-listing on the CSR performance of U.S. firms, we use a DID framework to capture the difference in CSR performance between cross-listed and non-cross-listed U.S. firms before and after cross-listing:

$$CSR_{it} = \alpha_0 + \alpha_1 CL_{it} + \alpha_2 CL\_firm_{it} + \alpha_3 Controls_{it} + Industry\ FE + Year\ FE + \varepsilon_{it} \quad (1)$$

where  $CSR_{it}$  is one of the CSR performance measures— $CSR$  and  $Adj\_CSR$ .  $CL_{it}$  is the main variable of interest, which captures firm  $i$ 's cross-listing status in year  $t$ . Following Boubakri et al. (2016), we use it as an interaction term between  $CL\_firm$  and  $Post$ , where  $Post$  is an indicator variable equal to 1 after cross-listing, and 0 otherwise<sup>3</sup>.  $CL\_firm_{it}$  specifies the treatment group (cross-listed firms) and control group (non-cross-listed firms). We add this variable to control for time-invariant differences between cross-listed and non-cross-listed firms.  $Controls_{it}$  is a vector of firm-level characteristics, including *Age*, *Size*, *ROA*, *Leverage*, *Sale\_grow*, *RDExp*, *ADExp*, *CAPX*, *MTB*, *Inst*, *PPE*, and *Interest*. In all regressions, we include industry fixed effects based on the first two digits of the SIC code<sup>4</sup>. We also include year fixed effects to control for temporal effects associated with all firms. Standard errors are clustered by firm. Our DID approach compares changes in the CSR performance of cross-listed U.S. firms after cross-listing with changes in the CSR performance of non-cross-listed U.S. firms in the corresponding years. In doing so, we hope to separate the effect of cross-listing from other factors potentially affecting firms' CSR performance.

## 4.2 Cross-listing and CSR performance

Table 3 reports the regression estimates from Equation 1, which examines how the cross-listing activities of U.S. firms affect their CSR performance. As shown, the coefficients on  $CL$  are statistically significant and positive in all columns, suggesting that U.S. firms are more likely to improve their CSR performance after cross-listing, relative to non-cross-listed counterparts.

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<sup>3</sup> We do not include  $Post$  in the regression, as year fixed effects subsume it.

<sup>4</sup> Our results are robust to firm fixed effect in untabulated table.

The results are also economically significant. Compared with non-cross-listed firms, the CSR performance of cross-listed firms increases by 0.33 from the pre-cross-listing level. These results are consistent with our hypothesis that, following cross-listing, U.S. firms are more likely to mitigate LOF in the host markets through improved CSR performance. The control variable results are largely consistent with the literature (Adams and Hardwick, 1998; Wu, 2006; Wieser, 2005; Orlitzky and Benjamin, 2001). Older (*Age*) and larger (*Size*) firms, as well as firms with more investment in R&D (*RDExp*) and advertising (*ADExp*), and better performance (*MTB*), are associated with higher CSR performance, while high-risk (*Leverage*) firms are associated with lower CSR performance.

[Table 3 here]

#### 4.3 The effect of institutions

To examine H2, we use three values (*Embeddedness*, *Mastery*, and *Hierarchy*) from Schwartz's (1994) cultural framework to construct interaction terms with *CL*; the results are reported in columns (1)–(2) of Panel A in Table 4. As expected, the coefficients of the interaction term  $CL \times Embeddedness$  are significantly positive (1.257, t-statistics=3.38 for *CSR*; 1.184, t-statistics=3.2 for *Adj\_CSR*). This supports the hypothesis that the level of embeddedness in the host country have a positive effect on cross-listed firms' CSR performance. The coefficients of  $CL \times Mastery$  are statistically negative in general (-2.653; t-statistics=-2.37 for *CSR*; -2.434, t-statistics=-2.2 for *Adj\_CSR*), suggesting that a high-mastery host country inhibits cross-listed firms' CSR performance. In addition, the coefficients of  $CL \times Hierarchy$  are not significant in the regressions (0.221; t-statistics=0.46 for *CSR*; 0.314, t-statistics=0.65 for *Adj\_CSR*), which indicates that the level of hierarchy in the host country does not affect cross-listed firms' CSR initiatives.

As national culture is part of a country's institutions, we next consider whether and how other institutions of the host country affect cross-listed firms' CSR performance. Therefore, to



provide a complete picture of institutional implications, we include other important institutions in the regression to conduct a horse racing analysis. Specifically, we control for another two informal institutions—religion (*Religion*) and social trust (*STrust*)—both of which are documented to be positively related to CSR performance (Jha and Cox, 2015; Du et al., 2014). We also control for formal institutions such as the anti-self-dealing index (*ANTI*) and anti-director rights index (*ADRI*), two proxies for investor protection<sup>5</sup>. In addition, some host countries mandate domestic listed firms to publish CSR reports. Although this mandatory requirement is not applicable to cross-listed firms, it reflects the degree of importance a country attaches to CSR issues, which may have an indirect effect on cross-listed firms' CSR performance. As such, we add mandatory CSR disclosure requirements (*CSR\_Mandate*) in the regression to proxy for the host country's CSR awareness (Christensen et al., 2022).

As shown in columns (3)–(4) of Table 4 Panel A, the coefficients of  $CL \times Embeddedness$  (1.213, t-statistics=1.93 for *CSR*; 1.055, t-statistics=1.7 for *Adj\_CSR*) and  $CL \times CSR\_Mandate$  (0.503; t-statistics=2.66 for *CSR*; 0.498, t-statistics=2.6 for *Adj\_CSR*) are significantly positive, while the interaction terms for the other institutions are not significant. These results suggest that the level of embeddedness and the CSR awareness in the host country are two important factors affecting cross-listed firms' CSR activities.

In Panel B, we use individualism (*IDV*)—the degree to which people in a society are integrated into groups—from Hofstede's cultural dimensions (Hofstede, 1980; Hofstede, 2001) as an alternative measure of embeddedness to validate the above results. As individualism is used in the literature to represent the opposite side of embeddedness (Schwartz, 2004; Chui et al., 2016), we expect a negative correlation between the level of individualism in the host country and the CSR performance of cross-listed firms. As expected, the coefficients of  $CL \times IDV$

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<sup>5</sup> The results remain the same when using the rule of law index and the legal origin as proxies for formal institutions.

and  $CL \times CSR\_Mandate$  are significantly negative in all columns, providing further support to our analysis.

In summary, the results in Table 4 show that the increase in CSR performance of U.S. firms cross-listed in foreign countries varies positively with the level of CSR awareness and stakeholder embeddedness of the host countries. These findings may reflect a learning process of cross-listed entities. That is, after cross-listing, cross-listed firms may learn from host markets and then adjust their behaviors to cater to local institutions and common practices so as to gain legitimacy and popularity among host country stakeholders.

*[Table 4 here]*

To further test the stakeholder learning effect, we conduct two sets of subsample analyses. First, we predict that cross-listed firms may try harder to learn about host countries' institutions if they have a high level of foreign revenue. As noted in Tsang et al. (2021), firms with foreign sales can enjoy additional benefits of cross-listing, such as enhanced brand image and lower costs associated with cross-listing. Therefore, cross-listed firms with high foreign revenue may work harder to learn and comply with host country institutions. To test this prediction, we partition the sample into two groups based on the median value of foreign revenue. The results are presented in columns (1)–(2) of Table 5. In addition, we expect customer-oriented firms to be more likely to learn from host countries' institutions because they need more background information to meet different consumer and stakeholder demands. Following Servaes and Tamayo (2013), we capture firms' customer awareness using marketing intensity, measured as the ratio of selling, general, and administrative (SG&A) expenses to total revenue. We partition the sample into two groups based on the median value of customer awareness. The results are reported in columns (3)–(4) of Table 5.

As shown, the coefficients of the interaction term  $CL \times Embeddedness$  and  $CL \times CSR\_Mandate$  are significantly positive in columns (2) and (4) while the differences

between the two sets of subsamples ((1) vs. (2), (3) vs. (4)) are statistically significant. In line with our predictions, these results suggest that the effect of host countries' embeddedness and CSR awareness on cross-listed firms' CSR performance is significantly stronger for the subsample with higher foreign revenue and for the subsample with better customer awareness than for the other subsamples. Overall, the results in Table 5 further support the stakeholder learning effect that cross-listed firms learn about important institutions from the host markets to meet the expectation of local stakeholders.

[Table 5 here]

#### 4.4 Robustness tests

We perform several further analyses to validate the robustness of our main results. First, to mitigate the concern that our results may be driven by heterogeneity between cross-listed and non-cross-listed firms, we conduct firm-to-firm propensity score matching based on the firm characteristics one year before cross-listing. This method cuts our sample to 22,892 firm-year observations. The statistics of the matched sample for the year prior to cross-listing are presented in Table 6 Panel A. As shown, except for *Size* and *MTB*, most of the differences between cross-listed and non-cross-listed firms decrease after matching. Panel B presents the regression results for matched sample, which is consistent with our baseline regression results.

[Table 6 here]

Next, we test whether our results are robust to different sample size and event window. To alleviate any concerns that our results may be driven by financial and utility firms, we exclude firms with SIC codes between 6000-6999 and 4900-4999. The results are presented in columns (1)–(3) of Table 7, and continue to show a significantly positive coefficient on *CL*.

In columns (4)–(6) of Table 7, we restrict the event window of matched sample to t-3 (3 years prior to the cross-listing year) to t+3 (3 years after the cross-listing year). This specification enables us to mitigate the concern of confounding events and correlated omitted variables

derived from a longer event window. The results remain positive and statistically different from zero, although the significance level decreases slightly due to the smaller number of observations.

*[Table 7 here]*

## **5. Additional Analysis**

### **5.1 CSR sub-dimensions**

The preceding results have demonstrated the positive impact of cross-listing on CSR performance. In this part, we take a closer look at how cross-listing affect different CSR dimensions. First, we divide the overall CSR scores (*CSR* and *Adj\_CSR*) into CSR strengths (*CSR\_STRS* and *Adj\_CSR\_STRS*) and CSR weaknesses (*CSR\_CONS* and *Adj\_CSR\_CONS*). The results in Table 8 Panel A show that the coefficients of CSR strengths are positive but not statistically significant, while the coefficients of CSR weaknesses are statistically negative. Therefore, the increase in CSR performance after cross-listing is mainly generated by a reduction in CSR weaknesses. These results suggest that after cross-listing, U.S. firms invest more in reducing their socially irresponsible activities to maintain a good reputation in the host market, implying a disciplining effect of cross-listing on firms' negative CSR practices. Then in Panel B, we partition the overall CSR scores into six CSR dimensions following KLD's classification and find that the positive effect of cross-listing is mainly concentrated on the environment, employee relations, product quality, and human rights dimensions.

*[Table 8 here]*

### **5.2 Financial motivation**

Our hypothesis suggests that cross-listed firms improve their CSR performance to alleviate the competitive disadvantage and costs caused by LOF. Therefore, it is important to know whether CSR actually plays a role in mitigating the negative financial consequences after cross-listing. In this part, we investigate the moderating effect of CSR on firm's profitability and financial constraints after cross-listing. Profitability is measured by *ROA* while financial

constraints is proxied by *KZ* index. As shown in Table 9, the coefficients on  $CL \times CSR$  is positively related to profitability while negatively related to financial constraints, indicating the mitigating effect of CSR on firms' financial outcomes after cross-listing. These findings lend further support to our LOF hypothesis.

*[Table 9 here]*

### **5.3 Cross-listing and CSR disclosure**

To better understand the effect of cross-listing on U.S. firms' CSR activities, we further investigate the change of CSR disclosure after cross-listing. We acquire the data of CSR disclosure from the ASSET4 database. This approach reduces our sample to 15923 observations because ASSET4 started to provide ESG information in 2002. We re-estimate our baseline regression for both CSR performance and CSR disclosure in Table 10. As shown, the coefficients on *CL* are still statistically associated with CSR performance. However, we do not find any evidence of the association between cross-listing and CSR disclosure.

## **6. Conclusion**

In this study, we examine whether and how host countries' institutional characteristics affect the CSR performance of U.S. firms after they cross-list their securities in foreign countries. Consistent with our conjecture that cross-listed firms exhibit better CSR performance in an attempt to mitigate the competitive disadvantage caused by LOF, we find a positive causal effect of cross-listing on U.S. firms' CSR performance. It further finds that the improvement in CSR performance after cross-listing is the result of reduced bad deeds (CSR weaknesses) rather than increased good deeds (CSR strengths), emphasizing the disciplining role of cross-border listing.

In addition, we conduct a comprehensive analysis of the relationship between host countries' institutions and cross-listed firms' CSR performance. We find that the national culture and mandatory CSR disclosure requirements of the host country have a positive effect on the CSR performance of cross-listed firms. Further analysis indicates that this positive effect is more

pronounced for firms with more foreign revenue and higher customer awareness, in line with the stakeholder learning hypothesis.

The findings of this study complement the literature that considers cross-listing as a tool for firms to gain a variety of benefits (Merton, 1987; Lehavv and Sloan, 2005; Ayyagari and Doidge, 2010). Our results suggest that cross-listing prompts firms to improve their CSR performance by restraining social wrongdoing. This paper also provides new evidence of the institutional implications for corporate behavior. Not only can country-level institutions affect domestic firms' operations, but they can also have a real social impact on foreign firms' corporate behavior following cross-listing.

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## Appendix 1 Variable Definitions

Variable	Definition	Source
<b>CSR Variables</b>		
<i>CSR</i>	Total number of strengths – Total number of concerns across all selected categories in each year.	KLD database
<i>Adj_CSR</i>	The total number of CSR performance each year adjusted by the median CSR performance of the industry (i.e. industry-adjusted CSR ).	KLD database
<i>CSR_Report</i>	An indicator variable sets equal to 1 if a firm provides the CSR report in year t, and zero otherwise.	ASSET4
<b>Cross-listing Variable</b>		
<i>CL</i>	An indicator variable sets equal to one if a firm is cross-listed in year t, and zero otherwise.	
<i>CL_firm</i>	An indicator variable sets equal to one if a firm participates in at least one cross-border listing during the sample period, and zero otherwise.	
<b>Firm Level Variables</b>		
<i>Age</i>	Natural logarithm of the fiscal year minus the first fiscal year of available accounting data.	Compustat
<i>Size</i>	Natural logarithm of the book value of total assets plus one in millions.	Compustat
<i>ROA</i>	Net income before extraordinary items scaled by the book value of total assets.	Compustat
<i>Leverage</i>	The ratio of a firm's total debt to total assets.	Compustat
<i>Sale_grow</i>	Change of sales scaled by lagged sales.	Compustat
<i>RDExp</i>	Research and development expenses scaled by sales.	Compustat
<i>ADExp</i>	Advertising expenses scaled by sales.	Compustat
<i>CAPX</i>	Capital expenditure scaled by the book value of total assets.	Compustat
<i>MTB</i>	The ratio of market value to book value of common equity.	Compustat
<i>Inst</i>	Natural logarithm of the percentage of institutional investors.	Thomson/Refinitive
<i>PPE</i>	The property, plant and equipment scaled by the book value of total assets.	Compustat
<i>Interest</i>	The interest expense scaled by the book value of total assets.	Compustat
<b>Country Level Variables</b>		
<i>Embeddedness</i>	Schwartz cultural orientation scores from Licht et al. (2007).	Licht et al. (2007)
<i>Hierarchy</i>	Schwartz cultural orientation scores from Licht et al. (2007).	Licht et al. (2007)
<i>Mastery</i>	Schwartz cultural orientation scores from Licht et al. (2007).	Licht et al. (2007)
<i>PDI</i>	Power distance index.	Geerthofstede.com
<i>IDV</i>	Individualism index.	Geerthofstede.com
<i>MAS</i>	Masculinity index.	Geerthofstede.com
<i>UAI</i>	Uncertainty avoidance index	Geerthofstede.com
<i>LTO</i>	Long-term orientation index.	Geerthofstede.com
<i>IVR</i>	Indulgence index.	Geerthofstede.com
<i>ADRI</i>	The anti-director rights index of Djankov et al. (2008).	Djankov et al. (2008)
<i>ANTI</i>	The anti-self-dealing index of Djankov et al. (2008).	Djankov et al. (2008)
<i>STrust</i>	A variable calculated from the responses to the WVS survey question: “Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?” We recode the responses to this question to 1 if a survey participant reports that most people can be trusted, and 0 otherwise, and then calculate the mean of the responses in each country-year.	World Values Survey
<i>Religion</i>	The percentage of the population with Protestant, Catholic, Muslim or Buddhist beliefs from La Porta et al. (1999).	La Porta et al. (1999)
<i>CSR_Mandate</i>	An indicator variable sets equal to one after the year when a country establishes mandatory CSR disclosure requirements, zero otherwise.	Christensen et al. (2022)

**Table 1: Descriptive statistics**

This table provides descriptive statistics of the main regression variables. The full sample is composed of 44028 firm-year observations over the period 1991-2018. Refer to Appendix A for detailed variable descriptions and data sources. All continuous variables are winsorized at the 1st and 99th percentiles.

Variable	N	Mean	SD	P25	Median	P75
<i>CSR</i>	44028	0.287	2.145	-1	0	1
<i>Adj_CSR</i>	44028	0.354	1.989	-1	0	1
<i>CL</i>	44028	0.114	0.318	0	0	0
<i>CL_firm</i>	44028	0.353	0.478	0	0	1
<i>Age</i>	44028	2.733	0.893	2.197	2.89	3.466
<i>Size</i>	44028	7.608	1.726	6.374	7.53	8.723
<i>ROA</i>	44028	0.02	0.141	0.008	0.035	0.074
<i>Leverage</i>	44028	0.223	0.193	0.05	0.196	0.347
<i>Sale_grow</i>	44028	0.132	0.384	-0.002	0.074	0.184
<i>RDExp</i>	44028	0.144	0.839	0	0	0.036
<i>ADExp</i>	44028	0.011	0.027	0	0	0.01
<i>CAPX</i>	44028	0.044	0.055	0.009	0.027	0.058
<i>MTB</i>	44028	3.564	5.096	1.443	2.228	3.714
<i>Inst</i>	44028	-0.505	0.774	-0.593	-0.295	-0.119
<i>PPE</i>	44028	0.226	0.241	0.033	0.134	0.345
<i>Interest</i>	44028	0.012	0.013	0.001	0.009	0.02
<i>Embeddedness</i>	44028	3.734	0.139	3.771	3.771	3.771
<i>Mastery</i>	44028	3.909	0.048	3.924	3.924	3.924
<i>Hierarchy</i>	44028	2.075	0.080	2.073	2.073	2.073

**Table 2 Correlation matrix**

This table provides the correlation matrix for the main regression variables. The full sample is composed of 44028 firm-year observations over the period 1991-2018. Refer to Appendix A for detailed variable descriptions and data sources. All continuous variables are winsorized at the 1st and 99th percentiles. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. <i>CSR</i>	<b>1.00</b>	<b>0.82</b>	<b>0.14</b>	<b>0.14</b>	<b>0.13</b>	<b>0.28</b>	<b>0.05</b>	<b>0.02</b>	<b>-0.04</b>	<b>0.06</b>	<b>0.09</b>	<b>-0.04</b>	<b>0.10</b>	<b>0.31</b>	<b>-0.07</b>	<b>-0.05</b>	<b>-0.02</b>	<b>-0.14</b>	<b>0.08</b>
2. <i>Adj_CSR</i>	<b>0.89</b>	<b>1.00</b>	<b>0.10</b>	<b>0.14</b>	<b>0.11</b>	<b>0.21</b>	<b>0.07</b>	<b>0.02</b>	<b>-0.02</b>	<b>0.04</b>	<b>0.06</b>	0.01	<b>0.05</b>	<b>0.22</b>	0.00	<b>-0.04</b>	-0.01	<b>-0.09</b>	<b>0.06</b>
3. <i>CL</i>	<b>0.16</b>	<b>0.12</b>	<b>1.00</b>	<b>0.49</b>	<b>0.07</b>	<b>0.15</b>	<b>0.02</b>	<b>0.02</b>	<b>-0.02</b>	<b>0.09</b>	<b>0.01</b>	0.01	<b>0.07</b>	<b>0.24</b>	<b>-0.01</b>	<b>-0.03</b>	<b>-0.49</b>	<b>-0.92</b>	<b>-0.02</b>
4. <i>CL_firm</i>	<b>0.17</b>	<b>0.17</b>	<b>0.49</b>	<b>1.00</b>	<b>0.14</b>	<b>0.32</b>	<b>0.11</b>	<b>0.06</b>	<b>0.03</b>	<b>0.11</b>	<b>0.01</b>	<b>0.07</b>	<b>0.18</b>	<b>0.45</b>	<b>0.06</b>	<b>0.01</b>	<b>-0.24</b>	<b>-0.45</b>	<b>-0.01</b>
5. <i>Age</i>	<b>0.15</b>	<b>0.14</b>	<b>0.07</b>	<b>0.13</b>	<b>1.00</b>	<b>0.35</b>	<b>0.17</b>	<b>0.13</b>	<b>-0.18</b>	<b>-0.08</b>	<b>-0.05</b>	<b>0.13</b>	<b>-0.07</b>	<b>0.36</b>	<b>0.25</b>	<b>0.09</b>	<b>0.01</b>	<b>-0.07</b>	<b>0.05</b>
6. <i>Size</i>	<b>0.33</b>	<b>0.28</b>	<b>0.15</b>	<b>0.32</b>	<b>0.34</b>	<b>1.00</b>	<b>-0.02</b>	<b>0.37</b>	<b>-0.07</b>	<b>-0.29</b>	<b>-0.01</b>	<b>-0.13</b>	<b>-0.17</b>	<b>0.70</b>	<b>0.02</b>	<b>0.29</b>	<b>0.01</b>	<b>-0.14</b>	<b>0.10</b>
7. <i>ROA</i>	<b>0.07</b>	<b>0.07</b>	-0.01	<b>0.04</b>	<b>0.19</b>	<b>0.20</b>	<b>1.00</b>	<b>-0.15</b>	<b>0.20</b>	0.00	<b>0.06</b>	<b>0.26</b>	<b>0.36</b>	<b>0.27</b>	<b>0.17</b>	<b>-0.21</b>	0.01	<b>-0.02</b>	<b>0.03</b>
8. <i>Leverage</i>	0.00	0.00	<b>0.02</b>	<b>0.04</b>	<b>0.06</b>	<b>0.30</b>	<b>-0.03</b>	<b>1.00</b>	<b>-0.04</b>	<b>-0.26</b>	<b>-0.09</b>	<b>0.03</b>	<b>-0.05</b>	<b>0.17</b>	<b>0.27</b>	<b>0.87</b>	<b>0.04</b>	<b>-0.02</b>	<b>0.03</b>
9. <i>Sale_grow</i>	<b>-0.04</b>	<b>-0.03</b>	<b>-0.02</b>	<b>0.02</b>	<b>-0.18</b>	<b>-0.09</b>	<b>-0.02</b>	-0.01	<b>1.00</b>	<b>0.06</b>	0.00	<b>0.06</b>	<b>0.21</b>	<b>0.03</b>	<b>-0.04</b>	<b>-0.08</b>	<b>-0.01</b>	<b>0.02</b>	<b>-0.02</b>
10. <i>RDExp</i>	<b>-0.01</b>	<b>-0.02</b>	<b>0.01</b>	<b>0.02</b>	<b>-0.15</b>	<b>-0.20</b>	<b>-0.45</b>	<b>-0.09</b>	<b>0.07</b>	<b>1.00</b>	<b>0.02</b>	<b>0.06</b>	<b>0.31</b>	<b>0.02</b>	<b>-0.12</b>	<b>-0.28</b>	<b>-0.09</b>	<b>-0.10</b>	<b>-0.02</b>
11. <i>ADExp</i>	<b>0.07</b>	<b>0.06</b>	<b>0.02</b>	<b>0.04</b>	<b>-0.06</b>	<b>-0.04</b>	<b>0.02</b>	<b>-0.06</b>	<b>0.01</b>	<b>-0.02</b>	<b>1.00</b>	0.00	<b>0.10</b>	0.00	<b>-0.11</b>	<b>-0.05</b>	-0.01	<b>-0.02</b>	0.00
12. <i>CAPX</i>	<b>-0.06</b>	<b>-0.01</b>	<b>-0.02</b>	<b>0.04</b>	<b>0.01</b>	<b>-0.08</b>	<b>0.06</b>	<b>0.04</b>	<b>0.06</b>	<b>-0.06</b>	-0.01	<b>1.00</b>	<b>0.19</b>	<b>0.09</b>	<b>0.85</b>	<b>0.07</b>	<b>0.01</b>	0.00	0.00
13. <i>MTB</i>	<b>0.07</b>	<b>0.04</b>	<b>0.06</b>	<b>0.10</b>	<b>-0.09</b>	<b>-0.13</b>	<b>-0.05</b>	<b>0.10</b>	<b>0.08</b>	<b>0.10</b>	<b>0.10</b>	<b>0.03</b>	<b>1.00</b>	<b>0.23</b>	<b>0.03</b>	<b>-0.09</b>	<b>-0.04</b>	<b>-0.08</b>	0.01
14. <i>Inst</i>	<b>0.30</b>	<b>0.25</b>	<b>0.22</b>	<b>0.40</b>	<b>0.31</b>	<b>0.63</b>	<b>0.23</b>	<b>0.10</b>	<b>-0.03</b>	<b>-0.10</b>	<b>0.01</b>	<b>0.03</b>	<b>0.10</b>	<b>1.00</b>	<b>0.12</b>	<b>0.06</b>	<b>-0.05</b>	<b>-0.23</b>	<b>0.10</b>
15. <i>PPE</i>	<b>-0.07</b>	<b>-0.02</b>	<b>-0.02</b>	<b>0.04</b>	<b>0.18</b>	<b>0.08</b>	<b>0.07</b>	<b>0.28</b>	<b>-0.03</b>	<b>-0.11</b>	<b>-0.08</b>	<b>0.70</b>	<b>-0.06</b>	<b>0.08</b>	<b>1.00</b>	<b>0.31</b>	<b>0.05</b>	<b>0.02</b>	<b>0.02</b>
16. <i>Interest</i>	<b>-0.09</b>	<b>-0.07</b>	<b>-0.04</b>	<b>-0.02</b>	0.00	<b>0.16</b>	<b>-0.12</b>	<b>0.79</b>	<b>-0.03</b>	<b>-0.07</b>	<b>-0.03</b>	<b>0.06</b>	<b>0.10</b>	<b>-0.04</b>	<b>0.28</b>	<b>1.00</b>	<b>0.05</b>	<b>0.03</b>	<b>0.01</b>
17. <i>Embeddedness</i>	<b>-0.05</b>	<b>-0.03</b>	<b>-0.74</b>	<b>-0.36</b>	0.00	<b>-0.03</b>	<b>0.03</b>	<b>0.02</b>	<b>0.00</b>	<b>-0.02</b>	<b>-0.02</b>	<b>0.03</b>	<b>-0.04</b>	<b>-0.09</b>	<b>0.05</b>	<b>0.04</b>	<b>1.00</b>	<b>0.46</b>	<b>0.53</b>
18. <i>Mastery</i>	<b>-0.13</b>	<b>-0.10</b>	<b>-0.86</b>	<b>-0.42</b>	<b>-0.05</b>	<b>-0.12</b>	0.01	<b>-0.01</b>	<b>0.01</b>	<b>-0.01</b>	<b>-0.01</b>	<b>0.03</b>	<b>-0.06</b>	<b>-0.19</b>	<b>0.02</b>	<b>0.04</b>	<b>0.80</b>	<b>1.00</b>	<b>0.01</b>
19. <i>Hierarchy</i>	<b>0.09</b>	<b>0.07</b>	<b>0.06</b>	<b>0.03</b>	<b>0.04</b>	<b>0.09</b>	<b>0.03</b>	<b>0.02</b>	<b>-0.01</b>	<b>0.00</b>	<b>0.01</b>	0.00	<b>0.01</b>	<b>0.10</b>	0.01	-0.01	<b>0.41</b>	<b>0.27</b>	<b>1.00</b>

Spearman (above) and Pearson (below)

**Table3 Cross-listing and CSR**

This table presents the DiD regression results for the effect of cross-listing on firms' CSR performance. All continuous variables are winsorized at the 1st and 99th percentiles. The t-values based on robust standard errors adjusted for clustering by firm are reported in brackets. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. FE: Fixed effect.

<i>Dependent variable:</i>	(1) CSR	(2) CSR	(3) Adj_CSR
<i>CL</i>	<b>0.287***</b> <b>(3.03)</b>	<b>0.330***</b> <b>(4.03)</b>	<b>0.279***</b> <b>(3.48)</b>
<i>CL_firm</i>	0.672*** (8.51)	0.040 (0.57)	0.062 (0.91)
<i>Age</i>		0.092*** (3.98)	0.099*** (4.41)
<i>Size</i>		0.468*** (18.60)	0.464*** (18.74)
<i>ROA</i>		0.159 (1.59)	0.155 (1.58)
<i>Leverage</i>		-0.508*** (-3.01)	-0.616*** (-3.77)
<i>Sale_grow</i>		-0.098*** (-4.33)	-0.100*** (-4.54)
<i>RDExp</i>		0.065*** (4.06)	0.057*** (3.69)
<i>ADExp</i>		3.164*** (3.42)	3.321*** (3.65)
<i>CAPX</i>		1.712*** (3.60)	1.942*** (4.23)
<i>MTB</i>		0.032*** (8.07)	0.032*** (8.10)
<i>Inst</i>		-0.140*** (-5.94)	-0.131*** (-5.62)
<i>PPE</i>		-0.444** (-2.51)	-0.511*** (-3.00)
<i>Interest</i>		-12.679*** (-6.08)	-10.735*** (-5.42)
<i>_cons</i>	0.246*** (2.68)	-3.196*** (-14.63)	-3.586*** (-16.91)
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
SE Clustered by Firm	Yes	Yes	Yes
Observations	44028	44028	44028
Adj. R <sup>2</sup>	0.168	0.259	0.157

**Table 4 The effect of institutions**

This table presents the regression results for the effect of cross-listing countries' institutions on cross-listed firms' CSR performance. Columns (1)-(2) are the results for national culture only and columns (3)-(4) are the results for all institutions. All continuous variables are winsorized at the 1st and 99th percentiles. The t-values based on robust standard errors adjusted for clustering by firm are reported in brackets. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. FE: Fixed effect.

<b>Panel A Schwartz national culture</b>				
	(1)	(2)	(3)	(4)
<i>Dependent variable:</i>	CSR	Adj_CSR	CSR	Adj_CSR
<i>CL</i>	5.603 (1.47)	4.779 (1.27)	2.166 (0.44)	1.018 (0.21)
<i>CL_firm</i>	0.056 (0.79)	0.077 (1.13)	0.060 (0.85)	0.082 (1.19)
<i>CL×Embeddedness</i>	<b>1.257***</b> <b>(3.38)</b>	<b>1.184***</b> <b>(3.20)</b>	<b>1.213*</b> <b>(1.93)</b>	<b>1.055*</b> <b>(1.70)</b>
<i>CL×Mastery</i>	-2.653** (-2.37)	-2.434** (-2.20)	-1.001 (-0.63)	-0.549 (-0.35)
<i>CL×Hierarchy</i>	0.221 (0.46)	0.314 (0.65)	-0.515 (-0.70)	-0.433 (-0.59)
<i>CL×Religion</i>			-0.007 (-0.51)	-0.008 (-0.60)
<i>CL×STrust</i>			-0.011 (-1.13)	-0.013 (-1.30)
<i>CL×ADRI</i>			0.042 (0.20)	0.028 (0.14)
<i>CL×ANTI</i>			-0.440 (-0.75)	-0.464 (-0.79)
<i>CL×CSR_Mandate</i>			0.503*** (2.66)	0.498*** (2.60)
<i>_cons</i>	-3.101*** (-14.17)	-3.492*** (-16.43)	-3.058*** (-13.98)	-3.445*** (-16.21)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
SE Clustered by Firm	Yes	Yes	Yes	Yes
Observations	44028	44028	43805	43805
Adj. R <sup>2</sup>	0.262	0.159	0.260	0.159



<b>Panel B Hofstede national culture</b>				
	(1)	(2)	(3)	(4)
	CSR	Adj_CSR	Abn_CSR	CSR
<i>CL</i>	6.285*** (3.17)	5.869*** (3.02)	8.335 (1.61)	9.045* (1.75)
<i>CL_firm</i>	0.054 (0.77)	0.075 (1.11)	0.061 (0.86)	0.082 (1.20)
<i>CL_PDI</i>	-0.027*** (-2.93)	-0.025*** (-2.81)	-0.031*** (-3.14)	-0.028*** (-2.88)
<i>CL_IDV</i>	-0.039*** (-2.79)	-0.037*** (-2.70)	-0.044*** (-2.89)	-0.039*** (-2.63)
<i>CL_MAS</i>	-0.001 (-0.17)	0.001 (0.12)	-0.006 (-0.51)	-0.006 (-0.47)
<i>CL_UAI</i>	-0.022* (-1.70)	-0.022* (-1.69)	-0.042 (-1.53)	-0.045* (-1.65)
<i>CL_LTO</i>	-0.014*** (-3.00)	-0.014*** (-3.03)	-0.004 (-0.62)	-0.005 (-0.66)
<i>CL×Religion</i>			0.011 (0.80)	0.006 (0.42)
<i>CL×STrust</i>			-0.018 (-1.30)	-0.023 (-1.64)
<i>CL×ADRI</i>			-0.063 (-0.22)	-0.104 (-0.37)
<i>CL×ANTI</i>			-0.474 (-0.35)	-0.820 (-0.61)
<i>CL×CSR_Mandate</i>			0.438** (2.29)	0.431** (2.23)
<i>_cons</i>	-3.103*** (-14.14)	-3.494*** (-16.41)	-3.054*** (-13.98)	-3.442*** (-16.22)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
SE Clustered by Firm	Yes	Yes	Yes	Yes
Observations	44028	44028	43805	43805
Adj. R <sup>2</sup>	0.263	0.161	0.261	0.160

**Table 5 Further tests**

This table presents the cross-sectional results for the effect of cross-listing countries' institutions on cross-listed firms' CSR performance. Columns (1)–(2) report the regression results regarding whether the institutional effect of the host country is stronger when cross-listed firms have higher foreign revenue. Columns (3)–(4) report the regression results regarding whether the institutional effect of the host country is stronger when cross-listed firms have higher customer awareness. All models include industry and year fixed effects. The t-values in parentheses are based on heteroscedasticity robust standard errors clustered by firm. \*, \*\*, and \*\*\* represent statistical significance at the 10%, 5%, and 1% levels, respectively. FE: Fixed effects.

	Foreign Revenue		Customer Awareness	
	Low (1)	High (2)	Low (3)	High (4)
<i>Dependent variable:</i>	<i>CSR</i>	<i>CSR</i>	<i>CSR</i>	<i>CSR</i>
<i>CL</i>	8.443 (1.44)	1.599 (0.29)	1.363 (0.27)	-4.678 (-0.55)
<i>CL_firm</i>	-0.019 (-0.25)	0.147 (1.23)	0.0470 (0.54)	0.112 (1.09)
<i>CL×Embeddedness</i>	-0.049 (-0.07)	2.051*** (3.01)	-0.737 (-1.03)	2.296*** (2.93)
<i>CL×Mastery</i>	-0.634 (-0.40)	-2.209 (-1.23)	1.687 (1.08)	-1.034 (-0.40)
<i>CL×Hierarchy</i>	-1.366 (-1.55)	-0.212 (-0.24)	-0.987 (-1.28)	0.224 (0.22)
<i>CL×Religion</i>	-0.004 (-0.41)	-0.003 (-0.22)	-0.009 (-1.04)	0.002 (0.20)
<i>CL×STrust</i>	-0.039*** (-2.88)	0.005 (0.43)	-0.034*** (-2.71)	0.006 (0.44)
<i>CL×ADRI</i>	-0.000 (-0.00)	0.164 (0.32)	-0.025 (-0.08)	0.066 (0.30)
<i>CL×ANTI</i>	0.202 (0.24)	-0.499 (-0.66)	0.209 (0.19)	-1.213* (-1.88)
<i>CL×CSR_Mandate</i>	0.391 (1.39)	0.543** (2.28)	0.305 (0.85)	0.752*** (3.43)
<i>_cons</i>	-2.634*** (-14.70)	-4.286*** (-13.40)	-2.380*** (-11.32)	-4.296*** (-16.59)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
SE Clustered by Firm	Yes	Yes	Yes	Yes
Observations	26,653	17,152	21,945	21,859
Adj. R <sup>2</sup>	0.255	0.3	0.255	0.315
Difference: <i>CL×Embeddedness</i>	P-value = 0.00		P-value = 0.00	
Difference: <i>CL×CSR_Mandate</i>	P-value = 0.03		P-value = 0.00	

**Table 6 PSM regression**

This table presents the baseline results using the propensity score matching method. Panel A reports the summary statistics for the matched sample and Panel B shows the baseline regression results. All continuous variables are winsorized at the 1st and 99th percentiles. The t-values based on robust standard errors adjusted for clustering by firm are reported in brackets. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. FE: Fixed effect.

**Panel A Summary statistics of the matched sample**

Variable	Matched Sample (22892)			Cross-listed firms (823)			Un-cross-listed firms (823)			Difference in mean
	Mean	Median	SD	Mean	Median	SD	Mean	Median	SD	
<i>CSR</i>	0.591	0	2.4	1.306	1	2.655	0.264	0	1.817	-1.043***
<i>Adj CSR</i>	0.621	0	2.259	1.066	0	2.531	0.061	0	1.699	-1.005***
<i>CL</i>	0.135	0	0.342	0	0	0	0	0	0	0
<i>CL_firm</i>	0.53	1	0.499	1	1	0	0	0	0	-1
<i>Age</i>	2.924	3.045	0.809	2.834	2.996	0.926	2.878	2.944	0.741	0.044
<i>Size</i>	8.087	8.027	1.707	8.485	8.476	1.789	7.566	7.46	1.539	-0.919***
<i>ROA</i>	0.034	0.041	0.118	0.023	0.04	0.143	0.02	0.033	0.135	-0.004
<i>Leverage</i>	0.224	0.206	0.18	0.243	0.231	0.193	0.225	0.197	0.195	-0.018*
<i>Sale grow</i>	0.124	0.073	0.362	0.182	0.086	0.529	0.175	0.078	0.495	-0.007
<i>RDExp</i>	0.122	0	0.754	0.236	0	1.096	0.175	0	1.025	-0.061
<i>ADExp</i>	0.012	0	0.027	0.013	0	0.028	0.013	0	0.03	0
<i>CAPX</i>	0.045	0.03	0.053	0.043	0.028	0.05	0.041	0.022	0.055	-0.003
<i>MTB</i>	3.683	2.375	4.933	5.256	3.127	6.988	3.452	2.114	5.167	-1.805***
<i>Inst</i>	-0.425	-0.278	0.631	-0.368	-0.216	0.664	-0.409	-0.237	0.693	-0.041
<i>PPE</i>	0.237	0.154	0.239	0.226	0.126	0.242	0.208	0.117	0.236	-0.018
<i>Interest</i>	0.012	0.009	0.012	0.012	0.009	0.013	0.011	0.008	0.013	-0.001

**Panel B Regression**

<i>Dependent variable:</i>	(1)	(2)	(3)
	CSR	CSR	Adj_CSR
<i>CL</i>	0.623*** (4.37)	0.569*** (4.45)	0.486*** (3.89)
<i>CL_firm</i>	0.777*** (7.58)	0.055 (0.58)	0.074 (0.80)
<i>post</i>	0.126 (1.11)	-0.075 (-0.74)	-0.058 (-0.59)
Controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
SE Clustered by Firm	Yes	Yes	Yes
Observations	22,892	22,892	22,892
Adj. R <sup>2</sup>	0.175	0.278	0.203

**Table 7 Restricted sample**

This table reports regression results for robustness tests. Columns (1)-(3) show the results after excluding firms in the financial and utility industries. Columns (4)-(6) present the results using the PSM method with the sample period from t-3 to t+3. All continuous variables are winsorized at the 1st and 99th percentiles. The t-values based on robust standard errors adjusted for clustering by firm are reported in brackets. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. FE: Fixed effect.

<i>Dependent variable:</i>	Non-financial & utility			PSM & [+3, -3]		
	(1) CSR	(2) CSR	(3) Adj_CSR	(4) CSR	(5) CSR	(6) Adj_CSR
<i>CL</i>	0.256** (-2.44)	0.291*** (-3.2)	0.243*** (-2.74)	0.277** (2.24)	0.439*** (2.94)	0.302** (2.02)
<i>CL_firm</i>	0.636*** (-6.9)	-(0.008) (-0.10)	(0.015) (-0.19)	0.751*** (3.40)	0.126 (0.61)	0.130 (0.63)
<i>post</i>					-0.264** (-2.12)	-0.204 (-1.60)
<i>Age</i>		0.087*** (-3.4)	0.090*** (-3.6)		0.316** (2.55)	0.340*** (2.78)
<i>Size</i>		0.486*** (-15.63)	0.486*** (-15.88)		0.657*** (9.53)	0.659*** (9.57)
<i>ROA</i>		0.125 (-1.24)	0.102 (-1.04)		0.987** (2.14)	0.880* (1.91)
<i>Leverage</i>		-0.571*** (-2.86)	-0.609*** (-3.14)		0.317 (0.54)	-0.043 (-0.08)
<i>Sale_grow</i>		-0.086*** (-3.41)	-0.090*** (-3.66)		-0.409*** (-3.95)	-0.377*** (-3.66)
<i>RDExp</i>		0.064*** (-3.99)	0.058*** (-3.74)		0.039 (0.64)	0.041 (0.71)
<i>ADExp</i>		3.657*** (-3.74)	3.689*** (-3.84)		6.560** (2.17)	6.465** (2.13)
<i>CAPX</i>		1.932*** (-3.98)	2.099*** (-4.5)		3.112 (1.65)	3.425* (1.82)
<i>MTB</i>		0.032*** (-7.4)	0.032*** (-7.66)		0.042*** (2.90)	0.040*** (2.86)
<i>Inst</i>		-0.157*** (-5.80)	-0.142*** (-5.37)		-0.067 (-0.81)	-0.060 (-0.72)
<i>PPE</i>		-0.576*** (-3.14)	-0.641*** (-3.61)		-1.684** (-2.35)	-1.613** (-2.27)
<i>Interest</i>		-11.715*** (-5.21)	-10.479*** (-4.82)		-8.914 (-0.94)	-4.538 (-0.49)
<i>_cons</i>	0.138 (-1.35)	-3.221*** (-12.95)	-3.486*** (-14.51)	-0.088 (-0.10)	-5.966*** (-4.87)	-6.329*** (-5.91)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustered by Firm	Yes	Yes	Yes	Yes	Yes	Yes
Observations	32839	32839	32839	3920	3920	3920
Adj. R <sup>2</sup>	0.162	0.26	0.163	0.201	0.333	0.261

**Table 8 CSR sub-dimensions**

This table reports the results of baseline regression using different CSR dimensions. In Panel A, I partition the CSR scores into CSR strengths and CSR concerns. Columns (1) and (3) show the results for CSR strengths and columns (2) and (4) are the results for CSR concerns. In Panel B, I partition the CSR scores into community, diversity, employee, environment, human, and product dimensions respectively. All continuous variables are winsorized at the 1st and 99th percentiles. The t-values based on robust standard errors adjusted for clustering by firm are reported in brackets. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. FE: Fixed effect.

<b>Panel A CSR strengths and CSR concerns</b>				
<i>Dependent variable:</i>	(1) CSR_STRS	(2) CSR_CONS	(3) Adj_CSR_STRS	(4) Adj_CSR_CONS
<i>CL</i>	0.101	-0.227***	0.101	-0.170***
	-1.27	(-4.53)	-1.28	(-3.54)
<i>CL_firm</i>	0.180***	0.156***	0.199***	0.141***
	-2.62	-3.67	-2.95	-3.4
<i>Age</i>	0.132***	0.033**	0.122***	0.014
	-5.9	-2.27	-5.52	-0.99
<i>Size</i>	0.791***	0.303***	0.776***	0.295***
	-25.78	-16.59	-25.45	-16.49
<i>ROA</i>	-0.203**	-0.386***	-0.200**	-0.390***
	(-2.08)	(-5.95)	(-2.11)	(-6.17)
<i>Leverage</i>	-1.228***	-0.737***	-1.273***	-0.569***
	(-7.07)	(-6.38)	(-7.42)	(-5.03)
<i>Sale_grow</i>	-0.156***	-0.054***	-0.163***	-0.045***
	(-7.56)	(-3.64)	(-7.82)	(-3.15)
<i>RDExp</i>	0.042***	-0.029**	0.042***	-0.027**
	-2.87	(-2.50)	-2.9	(-2.36)
<i>ADExp</i>	3.889***	0.317	3.597***	-0.016
	-3.99	-0.63	-3.8	(-0.03)
<i>CAPX</i>	1.360***	-0.595**	1.342***	-1.096***
	-3.03	(-2.02)	-3.05	(-3.89)
<i>MTB</i>	0.038***	0.004**	0.038***	0.005***
	-9.71	-2.28	-9.77	-2.93
<i>Inst</i>	-0.214***	-0.058***	-0.209***	-0.069***
	(-8.66)	(-4.56)	(-8.52)	(-5.44)
<i>PPE</i>	-0.300*	0.198	-0.327**	0.291**
	(-1.92)	-1.59	(-2.12)	-2.43
<i>Interest</i>	-6.891***	6.714***	-6.249***	3.744***
	(-3.55)	-4.96	(-3.30)	-2.82
<i>_cons</i>	-5.292***	-1.902***	-6.100***	-2.015***
	(-19.92)	(-13.06)	(-23.06)	(-13.95)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
SE Clustered by Firm	Yes	Yes	Yes	Yes
Observations	44028	44028	44028	44028
Adj. R <sup>2</sup>	0.372	0.333	0.329	0.153

<b>Panel B Six dimensions</b>						
<i>Dependent variable:</i>	(1)	(2)	(3)	(4)	(5)	(6)
	Community	Diversity	Employee	Environment	Human	Product
<i>CL</i>	-0.01 (-0.51)	-0.080** (-1.96)	0.107*** -2.94	0.196*** -5.91	0.038*** -3.64	0.081*** -3.68
<i>CL_firm</i>	0.017 -0.95	0.094*** -2.81	0.036 -1.34	-0.037 (-1.47)	-0.032*** (-4.64)	-0.053*** (-2.75)
<i>Age</i>	0.013** -2.39	0.062*** -5.19	0.029*** -3.13	0.017** -2.01	-0.007** (-2.54)	-0.015** (-2.52)
<i>Size</i>	0.067*** -10.76	0.303*** -24.72	0.130*** -12.54	0.084*** -9.05	-0.008*** (-3.18)	-0.077*** (-10.43)
<i>ROA</i>	-0.050** (-2.39)	-0.246*** (-4.32)	0.318*** -6.88	0.151*** -4.47	-0.024* (-1.92)	0.024 -0.8
<i>Leverage</i>	0.018 -0.52	-0.552*** (-6.43)	-0.202*** (-2.78)	0.161*** -2.69	0.009 -0.51	0.072 -1.52
<i>Sale_grow</i>	-0.014*** (-3.01)	-0.054*** (-4.13)	-0.034*** (-3.51)	-0.028*** (-3.40)	-0.008*** (-2.67)	0.030*** -4.79
<i>RDExp</i>	0.003 -1.13	0.026*** -2.62	0.020*** -2.91	0.008 -1.32	-0.003** (-2.46)	0.015*** -3.54
<i>ADExp</i>	0.917*** -3.48	2.743*** -5.65	0.388 -1.24	0.570* -1.72	-0.245*** (-3.21)	-0.814*** (-2.96)
<i>CAPX</i>	0.167* -1.65	0.261 -1.13	1.057*** -4.98	0.25 -1.44	-0.098 (-1.27)	0.341*** -3.09
<i>MTB</i>	0.003*** -2.99	0.016*** -8.13	0.008*** -5.34	0.007*** -4.17	0 (-0.36)	0.001 -0.52
<i>Inst</i>	-0.002 (-0.48)	0.019** -2.07	-0.087*** (-7.60)	-0.086*** (-8.59)	-0.010*** (-3.16)	0.004 -0.66
<i>PPE</i>	-0.125*** (-3.46)	-0.163** (-2.02)	-0.147** (-2.00)	-0.096 (-1.37)	0.077*** -2.66	-0.043 (-0.89)
<i>Interest</i>	-2.298*** (-5.08)	-1.225 (-1.20)	-3.174*** (-3.79)	-5.268*** (-6.58)	-0.412* (-1.96)	-1.428*** (-2.62)
<i>_cons</i>	-0.198*** (-3.87)	-2.241*** (-20.65)	-0.939*** (-10.91)	-0.778*** (-9.58)	0.085*** -4.05	0.734*** -11.83
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustered by Firm	Yes	Yes	Yes	Yes	Yes	Yes
Observations	44028	44028	44028	44028	44028	44028
Adj. R <sup>2</sup>	0.132	0.298	0.207	0.175	0.092	0.156

**Table 9 Financial motivation**

This table presents the results of the moderating effect of CSR on cross-listed firms' financial consequences. The dependent variables are *ROA* in column (1) and *KZ* index in column (2), respectively. All continuous variables are winsorized at the 1st and 99th percentiles. The t-values based on robust standard errors adjusted for clustering by firm are reported in brackets. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. FE: Fixed effect.

<i>Dependent variable:</i>	(1) ROA	(2) KZ
<i>CL</i>	-0.010** (-2.40)	0.019 (0.36)
<i>CSR</i>	0.002*** (3.18)	-0.024*** (-3.73)
<i>CL</i> × <i>CSR</i>	0.002* (1.71)	-0.026* (-1.76)
<i>Size</i>	0.013*** (9.48)	-0.006 (-0.35)
<i>Leverage</i>	-0.156*** (-20.35)	4.209*** (49.89)
<i>Sale_grow</i>	0.014*** (3.77)	-0.017 (-0.62)
<i>RDExp</i>	-0.061*** (-19.33)	0.161*** (11.16)
<i>ADExp</i>	-0.053 (-0.85)	0.181 (0.29)
<i>CAPX</i>	0.074*** (2.91)	1.466*** (5.05)
<i>Inst</i>	0.017*** (7.97)	0.044*** (2.73)
<i>PPE</i>	-0.002 (-0.21)	-0.688*** (-7.06)
<i>Cash</i>	-0.116*** (-10.63)	-0.939*** (-9.89)
<i>L_analyst</i>	0.003 (1.59)	0.072*** (2.72)
<i>CL_firm</i>	-0.000 (-0.13)	-0.011 (-0.29)
<i>_cons</i>	0.007 (0.81)	-0.386*** (-3.12)
Year FE	Yes	Yes
Industry FE	Yes	Yes
SE Clustered by Firm	Yes	Yes
Observations	37392	37392
Adj. R <sup>2</sup>	0.309	0.363

**Table 10 CSR disclosure**

This table presents the DiD regression results for the effect of cross-listing on firms' CSR performance and CSR disclosure. Columns (1) and (2) are the results for CSR performance and columns 3 and 4 are the results for CSR disclosure. All continuous variables are winsorized at the 1st and 99th percentiles. The t-values based on robust standard errors adjusted for clustering by firm are reported in brackets. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. FE: Fixed effect.

<i>Dependent variable:</i>	(1) CSR	(2) CSR	(3) CSR_Report	(4) CSR_Report
<i>CL</i>	0.284** (2.33)	0.214* (1.96)	0.020 (0.97)	-0.003 (-0.16)
<i>CL_firm</i>	0.771*** (6.49)	0.159 (1.46)	0.165*** (8.92)	0.055*** (3.40)
<i>Age</i>		0.228*** (4.71)		0.032*** (4.09)
<i>Size</i>		0.706*** (17.48)		0.148*** (29.12)
<i>ROA</i>		0.292 (1.14)		0.072* (1.79)
<i>Leverage</i>		-0.711** (-2.29)		-0.106** (-2.00)
<i>Sale_grow</i>		-0.240*** (-4.61)		-0.052*** (-6.59)
<i>RDExp</i>		0.190*** (4.72)		-0.002 (-0.36)
<i>ADExp</i>		4.687*** (2.77)		-0.239 (-1.12)
<i>CAPX</i>		2.402** (2.31)		-0.030 (-0.19)
<i>MTB</i>		0.038*** (6.51)		0.004*** (4.62)
<i>Inst</i>		-0.166*** (-3.66)		-0.032*** (-4.37)
<i>PPE</i>		-0.731** (-2.44)		0.082 (1.64)
<i>Interest</i>		-19.403*** (-4.02)		-0.603 (-0.78)
<i>_cons</i>	-0.008 (-0.06)	-6.376*** (-18.72)	-0.114*** (-6.32)	-1.470*** (-33.03)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
SE Clustered by Firm	Yes	Yes	Yes	Yes
Observations	15923	15923	15923	15923
Adj. R <sup>2</sup>	0.168	0.299	0.182	0.354