Major Shareholders' Trust and Market Risk: Substituting Weak Institutions with Trust

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Abstract

This study examines the impact of foreign controlling shareholder trust on firm market risk using the two measures of total and idiosyncratic risk. An extensive global sample of 12,496 firm-year observations from 43 countries is employed. The results show that firms controlled by foreign trusting shareholders display lower levels of risk in both market measures. Trust appears more important for firms based in countries with a less favourable institutional environment, whereby it varies with the investment horizon of foreign controlling shareholders. The results are robust after controlling for cultural measures, endogeneity, selection bias and alternative model specifications.

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1. Introduction

The influence of trust and social capital on individual behaviour has been extensively studied in the economics literature (see, e.g., Glaeser et al., 2000). In addition, there is a sizeable law and finance literature that focuses on corporate behaviour in diverse institutional settings (see, e.g., La Porta et al., 1997; Laeven and Levine, 2008). These studies show that common and civil law countries that uphold the rule of law through strong institutions and property rights allow individuals to dispense with costly monitoring. Despite the many studies in this area, little is understood about the impact of societal trust on the corporate risk profile. A key contribution of this study is that we take a global perspective and explore the impact of foreign controlling shareholders' trust on the market risk of firms. Our theoretical framework predicts that large foreign shareholders originating from high-trust environments reduce the market risk of firms (i.e., lower return volatility).

The monitoring of controlling shareholders is considered an important corporate governance tool that reduces agency costs (Jensen and Meckling, 1976; Taub, 2018). Corporate strategic decisions are often shaped by large controlling shareholders as they decide how management is to be monitored and compensated (Zou and Adams, 2008). Recent studies also provide evidence that a company's performance and risk profile are affected by the presence of large controlling shareholders, who can leverage their positions using convoluted systems of voting rights (Faccio et al., 2011; Mishra, 2011; García-Kuhnert et al., 2015; Taub, 2018).

The presence of foreign investors has been shown to reduce stock price volatility (Umutlu et al., 2010; Li et al., 2011; Vo, 2015). Stock market volatility is commonly analysed as an outcome of corporate decisions. High disclosure rankings, for example, are directly associated with lower subsequent stock return volatility (Bushee and Noe, 2000). Additionally, El Ghoul et al. (2019) find that firms located in countries with a high level of trust are more

likely to have a zero-leverage policy indicating that a country's culture affects corporate financial outcomes by influencing the actions of firm stakeholders. Consequently, the analysis of the influence of trust, and its association with the presence of large controlling shareholders, on the risk of firm market returns remains an important empirical task and is the primary focus of this paper.

In this study the trust associated with the presence of foreign shareholders is measured by the level of societal trust in the countries where the major shareholders are domiciled. Specifially, we measure a country's level of societal trust based on data from the World Values Survey, which is a proxy widely employed in recent studies (e.g., Georgarakos and Pasini, 2011; Kanagaretnam et al., 2018; Kanagaretnam et al., 2019). Consistent with the literature, we employ two measures of risk, namely total risk (the standard deviation of each firm's weekly stock returns) and idiosyncratic risk (the standard deviation of the residuals from the Fama and French (1993) three-factor model).

Our study builds on an important strand of the literature which has considered the effect of trust on economic decisions since trust underlies all commercial transactions and economic exchanges (Arrow, 1972; Williamson, 1993). Kanagaretnam et al. (2017) summarize this literature and show that higher levels of trust have positive macroeconomic (such as facilitating economic growth and international trade) and financial market (such as improving corporate financing and mergers and acquisitions) benefits as well as decreasing individual firm risk.

The study employs a global sample from 43 countries and 12,496 firm-year observations for the 2000-2016 period. The key finding is the negative effect of foreign controlling shareholders' trust on firm market risk, after considering for firm and country-level characteristics and controlling for industry and year effects. The evidence shows that firms controlled by large foreign shareholders originating from high-trust environments display

lower levels of risk using both market measures. We also find that trust is more important for firms located in countries with a less favourable institutional environment as well as for firms controlled by foreign shareholders with a long-term horizon. These results are robust after controlling for various cultural measures. We also consider the endogeneity of societal trust, which has a bidirectional version of causality with institutional quality (Knack, 2002; Paxton, 2002). To address the potential endogeneity concern, we apply a two-stage least squares analysis (2SLS) to ensure that unobservable determinants of trust do not influence firm market risk. Our findings are also robust to alternative model specifications and measures of firm risk as well as for selection bias and alternative sample constructs.

Our paper makes several important contributions to the law and finance and social capital literature. Firstly, we can provide empirical insights into how trust affects corporate market risk. Secondly, this study takes an international perspective, thereby adding alternative and more complex legal and property rights perspectives to various existing single country studies, including those in the United States (see, e.g., Hasan and Habib, 2019). Thirdly, we enhance the understanding of the effect of trust on market risk. Although existing studies investigate the relationship between trust and risk, they either disregard the financial sector or use accounting-based measures of firm risk (see, e.g., Kanagaretnam et al., 2017; Kanagaretnam et al., 2019). Given that risk, measured by total and idiosyncratic risk in our setting, has a negative impact on shareholder value, it is important to understand its determinants. This is especially important for idiosyncratic risk, which constitutes the largest component of individual stock returns (Goyal and Santa-Clara, 2003; Lui et al., 2007). Fourth, we contribute to a new strand of the literature that investigates the effects of trust on corporate decision-making (see, e.g., Pevzner et al., 2015; Bottazzi et al., 2016; Cingano and Pinotti, 2016; Dudley and Zhang, 2016; Qian et al., 2018; Hasan and Habib, 2019).

Fifth, we extend the understanding of the effect of the shareholder horizon on firm outcomes (Bushee and Goodman, 2007; Chen et al., 2007; Harford et al., 2018; Ding et al., 2020; Döring et al., in press) by indicating that long-term oriented foreign shareholders from high-trust countries reduce firm market risk. Sixth, by using a global sample, the study can compare various regions and different institutional environments, thereby adding to the already extensive law and finance literature. This study is, therefore, one of the first to consider the impact of the *trust* of large foreign shareholders on organisations' outcomes. Seventh, we propose that the geographic location where the controlling shareholders are based, and its degree of societal trust will significantly influence the level of firm risk. Thus the paper adds to the relevant literature on the supplementary role of informal institutions (North, 1994; Pevzner et al., 2015; Qian et al., 2018). Our empirical investigation indicates that trust plays a more important role in regions where formal institutions are less effective, and thus, acts as a substitute for the presence of formal institutions. Overall, we claim that higher levels of trust in the country of origin of foreign shareholders instigate them to hold corporate shares for longer (inaction) and, consequently, this lowers the market risk of firms.

The remainder of our paper is organized as follows. In Section 2, we review the related literature. Section 3 describes our research design and sample, while Section 4 describes our empirical results. Section 5 reports the extensions of our empirical investigation, and Section 6 presents the sensitivity testing and robustness of our results. Finally, Section 7 concludes the article.

2. Theory and Hypothesis Development

Trust, as a social and moral concept, and its link to individual and corporate risk-taking have attracted academic interest in economics and finance since it underlies all commercial transactions and economic exchanges (Arrow, 1972; Williamson, 1993). The concepts of trust

and risk are closely related: more trust is needed in risky situations and trusting someone or something (such as an organization) in itself involves taking a risk (Sabel, 1993). Thus, the nexus between risk and trust has also gained increasing acceptance among a number of social theorists (see, e.g., Gambetta, 1988; Mayer et al., 1995).

2.1 Large Shareholders and Control

It has been empirically established that major shareholders can act as monitors to alleviate agency problems. They do so with the aim of preventing actions that are in conflict with their own interests (DeMarzo and Urošević, 2006; Cronqvist and Fahlenbrach, 2009) through direct action, negotiation with management, and proxy fights (DeMarzo and Urošević, 2006). Managers who repeatedly act against the desires of controlling shareholders are likely to be replaced (Andres, 2008). Thus, it is expected that better monitoring reduces firm risk and uncertainty, increases output and positively influences firm value (DeMarzo and Urošević, 2006).[1]

There are, however, possible disadvantages to concentrated ownership. Firstly, agency costs will increase if large shareholders seek their own interests. This negatively impacts other stakeholders, such as minority shareholders and employees (Gürsoy and Kürşat, 2002; Andres, 2008). As a result, large shareholders could cause a deterioration in firm value (Edmans, 2014). Secondly, the firm's investment policy could be affected as concentrated ownership could indicate a lack of diversification with high exposure to systematic risk. Overall, the empirical evidence demonstrates that large shareholders can affect firm investment and financial policies

[1] When ownership is focused on a few individuals, agency costs are reduced as the monitoring of managers is easier and more efficient. Based on theoretical modelling, concentrated share ownership allows the largest shareholder to monitor managerial efforts more closely and modify the compensation contract accordingly (La Porta et al., 1999; Claessens et al., 2002; Faccio and Lang, 2002). Thus, when large shareholders control companies, their influence on corporate behaviour is expected to be higher (Taub, 2018).

(Goergen and Renneboog, 2001; Gürsoy and Kürşat, 2002; Cronqvist and Fahlenbrach, 2009) and contribute directly to higher risk (Gürsoy and Kürşat, 2002).

More recent studies also report that the risk profile and performance of companies are significantly impacted by large controlling shareholders' investment portfolios (Faccio et al., 2011; Mishra, 2011; García-Kuhnert et al., 2015). Such studies show that firms controlled by large diversified shareholders participate in riskier investments (Faccio et al., 2011). When similar tests were conducted on the banking sector, the results were found to be consistent (García-Kuhnert et al., 2015). Comparably, Paligorova (2010) found that corporate risk-taking is positively affected by shareholders with large equity stakes in several companies. This is further supported by Mishra (2011), who concludes that only large and diversified shareholders engage in riskier investment strategies.

Bushee (1998) shows that institutional investors do not reduce R&D expenditure, implying that they are sufficiently sophisticated to play a monitoring role in reducing myopic behaviour. This conclusion is confirmed in a series of papers by Bushee (2001, 2004). The literature also informs that shareholder monitoring intensity is conditional on their investment horizon. For example, dedicated (long-term oriented) investors are more active in monitoring since they have long-term interests in firms and often invest large stakes (e.g., Bushee, 1998; Chen et al., 2007).

On the other hand, transient (short-term oriented) investors are associated with frequent trading, and this short-term orientation, without much monitoring, encourages managers to engage in myopic behaviour (e.g., Bushee and Goodman, 2007; Brockman and Yan, 2009). Cumming et al. (2020) explore the effect of public-to-private buyout transactions on investments in innovation. Buyouts are associated with a significant reduction in patents and patent citations. However, the negative effect of buyouts is established only for institutional

buyouts, indicating that only institutional buyouts prevent target firms from adopting long-term investments. Attig et al. (2012) investigate the relevance of institutional investors' investment horizon to corporate governance and show that institutional investors with longer investment horizons engage in more effective monitoring. This benefits the firm since Attig et al. (2013) later demonstrate that firms with institutional investors with longer investment horizons tend to have a lower cost of equity due to improved monitoring and information quality. Hence, the investment horizons of foreign investors are critical and are examined in the empirical section of this paper.

Existing theoretical and empirical evidence shows that corporate behaviour may also be affected by the individual characteristics of large controlling shareholders. For example, the presence of foreign large controlling shareholders may improve the market-wide accuracy of public information (Umutlu et al., 2010) and enhance corporate governance and monitoring (Li et al., 2011). Additionally, the presence of foreign investors may improve the quality of risk controls and reduce the risk exposures of firms, especially those in emerging markets (Mitton, 2006; Ferreira and Matos, 2008; Umutlu et al., 2010). The prior literature highlights the "stabilizing" role of large foreign shareholders on emerging stock markets (Wang, 2007; Li et al., 2011) as their presence has a negative association with stock return volatility. Foreign investors also foster long-term investment in tangible, intangible and human capital (Bena et al., 2017). Moreover, the external social factors that shape shareholders' individual characteristics are also likely to have important implications for corporate performance. One important feature of this study is that we examine the impact of foreign shareholder trust on firm market returns.

2.2 Trust and Risk

The concept of trust is subjective and incorporates the individually assessed probability that the trustee will perform as expected (Gambetta, 1988). The subjective view of trust affects behavioural trust, which is the action of trust. Thus, subjective trust associates, first, with risk perception, which is considered as the probability that the trustee will not fully commit to a relationship and will act opportunistically, and second, with the probability and consequences of not achieving the goals in a relationship (Das and Teng, 2004). These two dimensions of risk affect the likelihood of risk-taking. We propose that there is an inverse relationship between perceived risk and subjective trust. Under this perspective, subjective trust and perceived risk can be considered as complimentary. At the one extreme, if there is no risk, there is no need for subjective trust. However, as the risk perception increases, the need for subjective trust increases as well.

Trust antecedents (i.e., personality, institutional and situational characteristics) directly influence the level of subjective trust, or the propensity to take the risk with the trustee. The prior literature suggests that values and networks in a society facilitate socially responsible behaviour and enhance societal trust (La Porta et al., 1997; Buonanno et al., 2009). Formalizing institutional rules (restraining arbitrary behaviour by government leaders) and reducing social polarization have a positive impact on societal cooperation and trust (Knack and Keefer, 1997). The enhanced stability of democratic institutions is an important factor for the development of societal trust (Inglehart, 1999). Indicatively, areas with high trust tend to have a stronger rule of law (La Porta et al., 1997) and less criminal activity (Buonanno et al., 2009). In summary, behavioural trust inevitably invites risk-taking.

On the other hand, Chircop et al. (2020) show that there is a positive relationship between religiosity and risk aversion, with venture capitalists located in more religious counties

making less risky investments. They prefer to be involved in staging and syndication and to invest in the later and expansion stages of portfolio companies.

Williamson (2000) provides a four-level social analysis to conceptualize various layers of institutions. Brockman et al. (in press) further elaborate on these institutional layers while testing their impact on security-level contract design in U.S. debt markets. At Level 1, which includes social trust, institutions are highly persistent over time and inherent to the country's underlying culture and norms. Formal political, judicial and economic institutions, such as investor protection and the political institutions of a country, are considered at Level 2. Level 3 concerns the individual and firm-level governance structures. The economic outcomes of the first three levels of institutions are revealed with transaction-level quantities and prices and the allocation of resources and thereby form the fourth level of economic institutions. In our paper, the aggregate and idiosyncratic risk measures are the Level 4 economic variables. Similarly, El Ghoul et al. (2017) provide insights into non-market mechanisms, such as CSR, through which firms can compensate for institutional voids. In the same vein, Schoorman et al. (2007) discuss substitution effects between control and trust in organizations.

Social trust construct is applied to other economic outcomes (Level 4) in explaining cross-country differences. Guiso et al. (2004) investigate the relationship between financial development and social trust. Similarly, Guiso et al. (2006) analyse the link between social trust and national savings, entrepreneurship, income redistribution, and finally stock market participation (Guiso et al., 2008). Bottazzi et al. (2016) concentrate on the effects of social trust on the behaviours of venture capitalists, while Pevzner et al. (2015) explore the effects of trust on stock market reactions to earnings announcements. The availability of trade credit during financial crises in the context of social trust is analysed by Levine et al. (2018). Finally, Brockman et al. (in press) analyse the role of social trust in international contracting.

2.3 Linking Trust with Market Risk

Risk reflects uncertainty about outcomes or events. At the firm level, the degree of risk incurred by a firm is crucial for investors, in particular, the number of financial performance fluctuations over time, such as in the share price (market risk) or internal accounting returns (accounting risk). Overall, firm risk is important because it can impair forecasting and planning activities, while it may indicate higher variability in organizational returns and/or a higher propensity for corporate decline and mortality (Baird and Thomas, 1985; Fiegenbaum and Thomas, 1988; Miller and Bromiley, 1990). Specifically for financial institutions, excess institutional and individual risk-taking may be one of the main causes of financial crises and volatility in financial markets (Jordà et al., 2013).

What emerges from the above discussion is that market risk is an important consideration for investors. According to traditional asset pricing theory, investors can diversify market risk through portfolio diversification. However, previous research suggests that investors do not often hold perfectly diversified portfolios for several reasons, such as the high transaction and search costs (Ang et al., 2006); a preference for exposure to a single firm; wealth constraints (Xu and Malkiel, 2003); preferences for stocks with certain characteristics (i.e., higher volatility, higher turnover etc.) or *erroneous* diversification strategies (Goetzmann and Kumar, 2008); and limited investor sophistication and investor-specific attributes (Dorn and Huberman, 2005).

Considering these reasons, it becomes obvious that investors cannot hold "fully" diversified portfolios. Since under-diversification exposes investors to higher risk, understanding the determinants of firm market risk is quite important for maximizing investors' wealth. Firm idiosyncratic risk arising from factors such as a deterioration in financial reporting quality and cash flow uncertainty (Irvine and Pontiff, 2009; Rajgopal and Venkatachalam,

2011) represents an important cost for investors and can negatively affect investors' wealth (Pontiff, 2006). More importantly, firm idiosyncratic risk results primarily from a firm's actions and is independent of the common market movement, and thus constitutes a factor that increases investors' perception of risk.

Trust is also directly linked with the level of market risk. Trust brings with it consistency over time and persistence in investment and thereby lower volatility (Mayer et al., 1995; Hasan and Habib, 2019). When shareholders have trust, they do not change their minds or their investment strategies often and abruptly (Schoorman et al., 2007). Trust in others can act as a substitute for costly monitoring (e.g., Knack and Keefer, 1997; Zak and Knack, 2001) and thus enhance economic performance, because economic agents in high-trust environments devote more time to production rather than costly monitoring (Lesmeister et al., 2018). Higher levels of trust also enhance stock market participation (Balloch et al., 2015) and increase stock ownership (Georgarakos and Pasini, 2011). Bottazzi et al. (2016) show a positive relationship between trust and investment, and their theory predicts that earlier stage investments require higher trust.

A lack of trust leads to a delay in investment decisions, or once the investment is carried out, it leads to frequent changes in attitudes towards the investment while leading to increased volatility in stock prices. Georgarakos and Pasini (2011) highlight that mistrust lowers the expected return from investments as investors link a lack of trust with an increased possibility that a contract will not be respected by the counterpart. A delay in investment decisions resulting from a lack of trust also implies that arbitrage opportunities in the market are not immediately materialized due to low participation in the market, thereby making the market even more volatile.

2.4 Theoretical Relationship and Hypothesis

According to Luhmann's (1979) theory of social systems, social trust provides a mechanism for reducing the internal complexity of social interaction and enables actors to establish mutual expectations of future behaviour (Dyer and Chu, 2003). We propose that the key features of an institutional environment, (i.e., investor protection, economic development and stock market development) and the geographical location of controlling shareholders in conjunction with the characteristics of the trustee (i.e., controlled by trusting foreign investors with a long-term horizon) will have a direct relationship on the propensity to take risk with the trustee and will hence lead to less volatility in the latter's share prices. For example, Allen (2005) annotates that China, a country with weak institutions, has experienced strong economic growth due to strong informal institutions, such as trust, acting as a substitute for good corporate governance and strong laws.

This proposition suggests that trust is important in cases where the trustor cannot take sufficient control of the situation (Nooteboom, 1996). Following the rationale of Guiso et al. (2008) and Zak and Knack (2001), we anticipate that higher levels of trust will increase shareholders' participation in the stock market and will instigate managers to act on behalf of shareholders' interests (due to the abovementioned cost of cheating). As a result, shareholders will be willing to hold corporate shares for longer, which in turn will reduce the market risk of firms (i.e., lower return volatility). The higher level of trust will encourage controlling shareholders to *place trust* in the actions of the trustee (in our case, the firm) (Michalos, 1990) and take more risk (which is measured by firm market risk).

Higher trusting shareholders also have a long-term horizon for the firm (Brockman et al., in press) and make more long-term investments (Bottazzi et al., 2016), while El Ghoul et al. (2019) highlight the importance of a country's culture in affecting corporate financial

outcomes. Our paper focuses on the social trust levels of foreign shareholders, who conduct more rigorous internal procedures when investing in other countries as compared to in their home countries. Hence, due to these transaction costs, once foreign shareholders decide to invest in a foreign country as blockholders, they prefer to stay longer in the host country and foster long-term investment in tangible, intangible and human capital (Bena et al., 2017). In addition, higher trusting foreign shareholders invest even more in long-term projects (Bottazzi et al., 2016). This long-term perspective reduces the return volatilities of the firm.

When foreign shareholders invest in a company, the company is subject to different managerial standards and norms. This is due to foreign investors being "*less encumbered by ties with corporate insiders"* (Bena et al., 2017, p. 123), a fact that curbs managerial entrenchment. Foreign-controlled firms often operate differently because of the international horizon they adopt. These social norms make them less volatile on the supply side, and the perception of this pattern on the demand side also lowers their risk or return volatility. The alternate view would be that despite societal trust contributing to the reduction of risk, it might not be enough to eliminate relational and performance risks. Under this perspective, investors will still be vulnerable to opportunistic behaviours and exposed to potential losses from financial performance fluctuations, which would be detrimental to their wealth. Sound examples include the collapse of Lehman Brothers and the rescue of AIG by the U.S. government (in September 2008), which yielded severe losses for investors. However, the empirical evidence indicates that the level of trust in the financial sector was "*indeed very low during the last months of 2008*" (Sapienza and Zingales, 2012, p. 130), strengthening the argument of low investor participation in stock markets when levels of trust are low (Guiso et al., 2004, 2008). Based on the discussion above, we formulate the following hypothesis:

***H**:* We propose that firms controlled by foreign shareholders that are domiciled in more trusting environments are more likely to have lower risk in stock returns after controlling for differences in the institutional environment.

3. Research Design

3.1 Measuring Firm Market Risk

We estimate firm market risk using the following two measures: total risk and idiosyncratic risk (Sila et al., 2016; Abdoh and Varela, 2017). Total risk (TRISK) is calculated as the yearly standard deviation of a firm's weekly stock returns. We follow Ang et al. (2006) and estimate idiosyncratic risk using the Fama and French (1993) three-factor model, as shown below:

$$RETURN_t = \alpha + \beta_1 MARKET\_RETURN_t + \beta_2 SMB_t + \beta_3 HML_t + \varepsilon_t \quad (1)$$

RETURN and MARKET_RETURN are the weekly stock and index returns, respectively. SMB is the difference between the excess return on a portfolio of small versus large capitalization stocks. HML is the difference between the excess return on a portfolio of high versus low book-to-market stocks, ε is the error term measuring firm-specific risk, and the subscript *t* references time *t*. Following Amihud (2002), stocks must have at least 40 non-missing trading months. We estimate model (1) for each firm and each year and calculate idiosyncratic risk as to the standard deviation of the residuals (IRISK). Following Sila et al. (2016), we annualize both measures of risk and multiply them by the square root of 250.

3.2 Measuring Foreign Shareholders' Trust

The measurement of shareholder country trust begins by identifying the large shareholders in each company. Large shareholders are defined as those who hold the largest stake of voting rights, under the condition that this stake is at least 5%. There is no unanimous

theoretical ground for defining blockholders, but normally, they are defined as shareholders that hold at least 10% (Bodnaruk et al., 2008; Laeven and Levine, 2008; Mishra, 2011) or at least 5% (Li et al., 2006; Cronqvist and Fahlenbrach, 2009) of the equity ownership of the firm. The cut-off of 5% is conventionally used in the literature as it represents the minimum significant threshold of votes. Also, most countries mandate the disclosure of 5% ownership stakes.

After identifying the largest controlling shareholder for all companies with available ownership data, we match the shareholders' countries with societal trust data[2]. This approach is consistent with a number of other studies (see, e.g., Guiso et al., 2008; Georgarakos and Pasini, 2011; Pevzner et al., 2015; Cingano and Pinotti, 2016; Dudley and Zhang, 2016) and is based on the following question from the World Values Survey (WVS): "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?". This trust measure represents the average fraction of respondents that answer "Most people can be trusted" in each country over three surveys conducted in 1999-2004, 2005-2008, and 2010-2014[3]. Hence, shareholder country trust (SHTRUST) represents the level of societal trust where the shareholder is based, which is expected to have a strong influence on the characteristics of the shareholders.

Throughout our study, we concentrate on large foreign shareholders, whereby a foreign shareholder is defined as a citizen of another country, a business entity registered (or headquartered) in another country, or an unlisted majority-owned subsidiary of a foreign

[2] We obtain data for each firm's ownership structure on a yearly basis (i.e., at the end of each calendar year – 31st of December), through Thomson Reuters Eikon database. Therefore, our data capture potential changes in the ownership structure of each firm across the entire sample period (i.e., 2000-2016). For each shareholder's country of origin, we rely upon Eikon's identification.

[3] The seventh wave of the WVS commenced in January 2017 and lasted until December 2019 (see http://www.worldvaluessurvey.org/wvs.jsp, Accessed 10 February, 2020). Since WVS waves are planned every five years, we consider the values of 2015 and 2016 to be equal to the sixth wave (2010-2014). Our inferences remain unchanged if we remove 2015 and 2016 from the analysis or when we interpolate SHTRUST values between two adjacent waves.

company (similar to Li et al., 2011). We focus on foreign shareholders since earlier studies demonstrate that foreign investors help to reduce risks in firms that they invest in and hence, reduce stock price volatility (Umutlu et al., 2010; Li et al., 2011). This phenomenon has been documented by prior studies (e.g., Vietnam (Vo, 2015), Indonesia and Thailand (Wang, 2007), and in 31 emerging markets (Li et al., 2011)). The entry of foreign investors into a market has the ability to improve the accuracy of public information (Umutlu et al., 2010) and to enhance corporate governance and monitoring (Li et al., 2011). The previous literature also associates the presence of foreign investors with improvements in reporting standards and significant reductions in transaction costs, informational costs and risk exposure (see, e.g., Vo, 2015). Overall, foreign ownership matters, and its presence brings stability to local markets (Wang, 2007; Umutlu et al., 2010; Li et al., 2011; Vo, 2015), which in turn results in lower stock return volatility.

3.3 Instrumental Variables Approach

Societal trust has been shown to promote economic growth and investment and encourage investors' participation in financial markets and financial development (Knack and Keefer, 1997; Zak and Knack, 2001; Guiso et al., 2004, 2008). Previous studies have also suggested that risk is a function of the quality of the institutional environment (i.e., property rights protection, quality of government) (see, e.g., Morck et al., 2000; Jin and Myers, 2006). Although our model specification controls for such factors (see Section 3.4), endogeneity issues could affect our coefficient estimates as unobservable determinants of trust may influence firm risk.

The academic literature contends that institutional quality has the ability to produce societal trust (Paxton, 2002) and societal trust can produce institutional quality (Knack, 2002; Paxton, 2002), indicating a bidirectional version of causality. For example, Aghion et al. (2010)

document a link between trust and government regulation and argue that the public demand for trust is formed by distrust, whereas the formation of trust may be discouraged by regulation. It is important to note that prior research also suggests that individual idiosyncratic features (such as education and religious upbringing (see, e.g., Guiso et al., 2004)) can create considerable differences in the levels of trust across individuals, regions and countries. This view is also supported by a survey from Sapienza and Zingales (2012), which indicates that during the last months of 2008, people became less confident (decrease in trust) in investing in the financial markets due to government intervention.

To tackle the potential endogeneity issue, an instrumental variables approach based on two-stage least squares (2SLS) is utilized. Previous studies suggest that racial heterogeneity is associated with a reduction in the levels of bilateral trust (Gupta et al., 2018). Leigh (2006) supports an inverse relationship between ethnic diversity and trust on the basis that diverse communities find it more challenging to enforce a system of social norms and thus trusting one another becomes less likely. Given that a country's ethnicity and diversity are sticky over long periods (e.g., Guiso et al., 2006), the effect of racial heterogeneity is quite likely to be exogenous.

To capture the racial heterogeneity in the shareholder's country, we use ethnic fractionalization data as described in Alesina et al. (2003), specifically the ethnic fractionalization of the country of origin of the largest shareholder (SHETHFR). We anticipate a negative impact of SHETHFR on trust, as Alesina et al. (2003) suggest that homogeneous communities (such as Japan) have higher levels of social capital since they experience higher levels of social interaction. In addition, Glaeser et al. (2000) and Knack and Keefer (1997) report that racial factors may affect the level of trustworthiness among individuals. Although we anticipate a negative relationship between SHETHFR and SHTRUST, it is unlikely that this will influence firm risk.

3.4 Empirical Model

To test our hypothesis, we use the following model specification:

$$\begin{aligned} \text{RISK} = {} & \beta_0 + \beta_1 \text{SHTRUST} + \beta_2 \text{ROA} + \beta_3 \ln(\text{ASSETS}) + \beta_4 \text{LEVERAGE} + \beta_5 \text{MB} + \\ & \beta_6 \ln(\text{AGE}) + \beta_7 \text{BIG4} + \beta_8 \text{GDPGR} + \beta_9 \text{INVPROT} + \sum \text{YEAR} + \sum \text{INDUSTRY} + \varepsilon \end{aligned} \quad (2)$$

The dependent variable is a vector (RISK) representing the two measures of firm risk, as presented in Section 3.1, and SHTRUST represents our measure of the societal trust of the country of origin of the largest shareholder, as presented in Section 3.2. Several firm-level variables are employed to control cross-sectional differences in firm characteristics that may influence risk. We control for profitability and size using the ratio of earnings before interest and taxes (EBIT) to total assets (ROA) and the natural logarithm of total assets (ln(ASSETS)), respectively, since larger and more profitable firms are more likely to experience lower return volatility (Pastor and Veronesi, 2003). As a measure of financial leverage, we use the ratio of total debt over total assets (LEVERAGE) because financially distressed firms are more likely to be leveraged and have higher return volatility (Rajgopal and Venkatachalam, 2011).

Previous studies provide an association between volatility and firm growth opportunities (Cao et al., 2008) and establish firm age as an important determinant of volatility since younger firms have more volatile cash flows than older firms (Pastor and Veronesi, 2003; Cao et al., 2008). We further account for firm growth opportunities, operationalized as the market-to-book value of equity (MB), and for firm age (ln(AGE)), measured as the natural logarithm of 1 plus the number of years since incorporation. We employ an indicator (BIG4) to control for the firm being audited by a Big-4 audit company (Deloitte, PricewaterhouseCoopers, Ernst & Young, and KPMG) as Big-4 audit firms are associated with lower return volatility (Gul et al., 2010). Considering the established link between market returns and GDP and investor protection (see, e.g., Morck et al., 2000), we conclude our model

for country-level controls and incorporate the annual growth in GDP (GDPGR) and the investor protection index (INVPROT). Following Pevzner et al. (2015), we construct INVPROT as the sum of the anti-self-dealing index from Djankov et al. (2008) and the rule of law index from Kaufmann and Kraay (2017) after standardizing both indices to be between zero and one. The standard errors of all the regression estimates are adjusted using heteroskedasticity-corrected and clustered robust standard errors, clustered on firms. Finally, we control for year and industry dummies and winsorize continuous variables at the top and bottom 1% to mitigate the effect of outliers; we present the variable definitions in Appendix A.

3.5 Data

Our sample spans a 17-year period from 2000 to 2016. We begin our sample construction process with the entire universe of active and listed firms in the DataStream database, which is our primary source for stock price information and accounting data (e.g., similar to Ferreira and Matos, 2008; Pevzner et al., 2015). Next, we collect ownership data using Thomson Reuters Eikon.[4] One of the main advantages of this source is the availability of data at the investor level, a property which enables us to not only identify each company's blockholders, and subsequently the controlling shareholder, but also to identify shareholders originating from a country different to the country of the company headquarters.[5] We also

[4] Thomson Reuters Eikon is used because it firstly, provides global coverage for ownership holdings across more than 70,000 securities in 70+ markets (see http://www.refinitiv.com/content/dam/marketing/en_us/documents/fact-sheets/ownership-profiles-fact-sheet.pdf), and has been used in prior studies (e.g., Anand et al., 2019; Chahine et al., 2020; Chantziaras et al., 2020). Second, ownership data through Thomson Reuters Eikon share similar properties with other databases employed in the literature (e.g., the Orbis, Amadeus and Osiris databases available through Bureau Van Dijk (e.g., Li et al., 2011; Bena and Ortiz-Molina, 2013; Lin et al., 2013; Cumming et al., 2019)), and it differs from the Fact-Set/LionShares database as the latter specialises in global institutional ownership (e.g., Ferreira and Matos, 2008; Bena et al., 2017).

[5] Through Thomson Reuters Eikon, data can be obtained at the investor level, indicating a) the full name of the investor; b) a description of the type of investor (e.g., institution, individual, entity, etc.); c) the investor's country (i.e. country of origin or headquarters for individuals and entities, respectively); and d) the exact percentage of stocks held.

include the country-level and societal trust data, available through the World Bank and the World Values Survey (WVS), respectively.

[Insert Table 1 about here]

The starting point of our sample period begins in 2000 due to poor coverage of the ownership structure data available through Eikon. We begin with 5,243 listed firms with common support from the Eikon and DataStream databases, which are controlled by a foreign shareholder and for which the country of origin of the largest shareholder is covered by the WVS. Our data requirements for the stock price information and the control variables for our main model (2) further drop 337 and 871 firms, respectively, due to missing data. Following previous studies (e.g., Beck et al., 2013), our sample selection criteria require at least two firm-year observations for each firm within one country and at least four firms in one country, and thus we eliminate 1,240 firms. Our final sample comprises 2,795 firms controlled by foreign shareholders (translated into 12,496 observations; see Table 1 for a description) scattered across 43 countries (see Table 2).

[Insert Table 2 about here]

In the right part of Table 2, we present the average value of our trust measure in each country. We observe that the Philippines, Colombia, Brazil, Peru, and Malaysia are among the bottom five countries in terms of societal trust (measured at the country of corporate headquarters – TRUST) as less than 10% of respondents of the WVS answered that "Most people can be trusted". On the other hand, Norway, Denmark, Sweden, and Finland belong to the top four countries as more than 58% of their citizens indicated that people in their country can be trusted. Another interesting pattern in our data is the level of trust of the largest shareholder (SHTRUST). We observe that Russia, Argentina, Peru, Chile, and Indonesia are among the bottom five countries in terms of shareholder country trust. In contrast, Finland,

New Zealand, Sweden, Norway, the Philippines, and Belgium attract shareholders from countries with higher levels of societal trust as more than 40% of the citizens of the country of origin of the largest shareholder indicate that people in their country can be trusted.

4. Empirical Results

4.1 Univariate Analysis

The descriptive statistics for the main variables used in our analysis are provided in Table 3. The first two lines present a description of the dependent variables, followed by the measure of shareholder country trust and the rest of the control variables. The descriptive statistics indicate that the average value of shareholder country trust is 35.7%. The average firm has a leverage ratio of 0.576, a market-to-book ratio of 1.907, and exhibits negative profitability, as suggested by ROA, which is on average -17.9%. Additionally, more than half of our in-sample firms are audited by a Big-4 audit firm (58.1%). We also present the mean-variance inflation factors (VIFs) in each model and show evidence that multicollinearity is not likely to influence our results.

[Insert Table 3 about here]

4.2 Multivariate Analysis

We conduct a multivariate analysis to investigate any association between the level of shareholder country trust and firm risk. Table 4 presents the results of the OLS and 2SLS analyses, whereby we analyse the impact of foreign shareholder's trust on a firm's total and idiosyncratic risk (Columns 1 and 3 and 2 and 4, respectively). We include OLS estimates to facilitate benchmarking for the 2SLS estimates (Columns 3 and 4). We also provide first-stage results in Appendix B (for the sake of brevity, we do not report the first-stage results). We observe that the coefficient of SHTRUST is negative and statistically significant, after

controlling for numerous firm-level and country-level control variables, supporting our hypothesis that foreign shareholder trust reduces firm risk (either for the OLS – Columns 1 and 2 – or the 2SLS estimates – Columns 3 and 4). In all models, the mean VIFs are around 1.3, implying no multicollinearity. The statistically significant values of the Hausman tests suggest that the hypothesis of no endogeneity cannot be rejected. The partial *R*-squares and the *F*-statistics indicate that the instrument is highly correlated with the endogenous variable, while the *F*-statistics are above the threshold of 10 (Staiger and Stock, 1997), indicating a strong instrument. In terms of economic significance and drawing upon the OLS estimates, a one standard deviation change in SHTRUST (0.121) is associated with a 3.61% (3.78%) decrease in firm idiosyncratic (total) risk.

[Insert Table 4 about here]

Referring to the control variables, the negative coefficients of ROA and ln(ASSETS) support the notion that more profitable and larger firms will experience lower return volatility (Pastor and Veronesi, 2003). Our evidence also suggests that risk reduces with firm age, which is aligned with the findings of Pastor and Veronesi (2003) and Cao et al. (2008). Finally, the negative and highly significant coefficient of BIG4 verifies the documented negative association between Big-4 auditors and lower return volatility (Gul et al., 2010).

5. Formal Institutions

5.1 Cross-Country Variation in the Effect of Trust on Firm Risk

The existing literature indicates that informal institutions, including social norms, religiosity and trust, will influence corporate behaviour differently in different institutional settings (North, 1994; Guiso et al., 2004). In particular, informal institutions will be more important in regions where formal institutions are less effective and will act as substitutes to formal institutions (see e.g., North, 1994; Brockman et al., in press). This notion is empirically

supported by the evidence provided by Guiso et al. (2004) for Italy and by Ang et al. (2015) for China. Recent evidence from the banking sector indicates that informal institutions play an important role in loan volume and loan conditions (Qian et al., 2018), with their effect being more prominent in weak institutional contexts and in contexts with weak legal protection or law enforcement. Against this background, we anticipate that shareholders' trust will vary across countries due to differences in their institutional environment. To this end, we empirically test the effect of foreign shareholder trust on firm risk for firms located in 1) countries with low investor protection (Subsection 5.1.1) and 2) weak institutional contexts (Subsection 5.1.2).

5.1.1 Poor Investor Protection, Foreign Shareholder Trust and Firm Risk

As we highlighted previously, informal institutions matter more in the absence of formal institutions (North, 1994; Guiso et al., 2004), and their effect is expected to be more pronounced in regions where formal institutions are less effective, and so will act as substitutes to formal institutions (North, 1994). Pevzner et al. (2015) provide evidence that the effect of trust on investors' reactions to corporate financial disclosures is more pronounced in countries with low investor protection, a finding which is consistent with the law and finance literature. To empirically test for cross-country variations in the effect of foreign shareholder trust on firm risk, we separate our sample using the sample median of INVPROT in each year.[6] We present the results in Table 5, where we observe that SHTRUST is negative and statistically significant in countries with low investor protection (see Columns 1 and 2 of Table 5), while it lacks statistical significance in countries with higher investor protection (see Columns 3 and 4 of Table 5). We also test for homogeneity in the pairwise estimated coefficients of SHTRUST,

[6] Following Brockman et al. (in press), we consider two alternative measures of investor protection, namely the rule of law (RULAW) and the control for corruption (CORRUP) indices available through the World Bank. Repeating our analyses after separating our sample using the sample median of either of the two aforementioned indices yields similar results.

using Wald tests, and find that their difference is statistically significant at the 1% level (Columns 1 and 3 *t*-stat = 20.723 and Columns 2 and 4 *t*-stat = 12.33) across countries with both low and high investor protection. This evidence indicates that the impact of foreign shareholder trust on market risk is more pronounced in countries with poor investor protection.

[Insert Table 5 about here]

5.1.2 Weak Institutional Contexts, Foreign Shareholder Trust and Firm Risk

Aside from cross-country variations in investor protection, we also investigate whether the effect of foreign shareholder trust varies across different institutional contexts. Less developed contexts constitute a challenging institutional environment due to imperfect contracting, less- or under-developed market mechanisms, unpredictable and burdensome regulations, bureaucratic procedures, political instability or discontinuity in government policies (Khanna and Palepu, 1997, 2000). These authors highlight that such contexts face various market failures, attributable to a lack of adequate disclosure and weak corporate governance and control. In addition, another strand of the literature underlines the inefficiencies in the judiciary system, especially in terms of law enforcement (see, e.g., Qian et al., 2018), and shows that even after laws and regulations have been established, their enforcement often remains poor (Pistor et al., 2000). Therefore, the role of informal institutions becomes more important in weak institutional contexts. Under certain circumstances (e.g., with the existence of imperfections in informal institutions) these informal frameworks can even replace formal institutions (Allen et al., 2005).

To empirically investigate whether there are any variations in the effect of foreign shareholder trust on firm risk, we separate our sample into weak/strong institutional contexts

(i.e., developing vs. developed countries) using the United Nation's classification system (https://unstats.un.org/unsd/methodology/m49/#fn6).[7]

[Insert Table 6 about here]

Table 6 presents the results of our analyses. We observe that the effect of foreign shareholder trust is more prominent in weak institutional contexts as SHTRUST is negative and statistically significant at the 1% level of significance (see Columns 3 and 4 of Table 6), while it lacks statistical significance in strong institutional contexts (see Columns 1 and 2 of Table 6). Additionally, the Wald tests for homogeneity in pairwise coefficients indicate that the differences in the coefficients of SHTRUST are statistically significant at 1% (Columns 1 and 3 *t*-stat = 10.7 and Columns 2 and 4 *t*-stat = 9.005) between weak and strong institutional contexts. This evidence indicates that the impact of foreign shareholder trust on market risk varies with the strength of the institutional context. The results presented in this and the previous subsections corroborate previous studies and show that informal institutions have larger effects in regions where formal institutions are less effective (North, 1994; Guiso et al., 2004; Qian et al., 2018). More broadly, these results add to existing evidence that demonstrates informal institutions (such as trust) have the ability to constrain firm risk (see, e.g., Kanagaretnam et al., 2017; Hasan and Habib, 2019).

5.2 Investors' Horizon and the Effect of Foreign Shareholder Trust on Firm Risk

In addition to the cross-country variations, we also investigate whether foreign shareholder behaviour varies according to their investment horizon. The existing literature suggests that short-term investors are less likely to actively monitor firms since they possess

[7] Following Brockman et al. (in press), we consider two alternative measures to capture the quality of the institutional environment, namely the voice and accountability (VOICACC) and the government effectiveness (GOVEFF) indices available through the World Bank. Repeating our analyses after separating our sample using the sample median of either of the two aforementioned indices, yields similar results.

informational advantages that they use to trade regularly (e.g., Bushee and Goodman, 2007; Brockman and Yan, 2009). On the other hand, long-term investors more actively monitor firms as they have long-term interests in firms and often invest large stakes (Bushee, 1998; Chen et al., 2007). Against this background, we draw upon relevant studies (e.g., Harford et al., 2018) and classify foreign major shareholders as per their investment horizon (short-term vs. long-term). We incorporated the suggested papers on page 27:

Döring et al. (2020) summarize the debate concerning the relevance of shareholder investment horizon in influencing corporate governance decisions, while Ding et al. (2020) investigate the information asymmetries that exist between local and foreign institutional investors. In the latter study, local institutional investors were found to have an information advantage over foreign institutional investors when investing in partially state-owned Chinese enterprises, although this local information advantage was not present when there was no state ownership. More specifically, we start at the investor level and measure the horizons of investors based on their portfolio turnover. For every investor and every year, we look back three years (similar to Harford et al., 2018) and compute the fraction of the investor's portfolio that is no longer held at the end of the period. We then classify investors as having either a short-term or long-term horizon, using a portfolio turnover cut-off of 35% (similar to Froot et al., 1992; Harford et al., 2018).

[Insert Table 7 about here]

In Table 7 we separate investors according to their investment horizon, namely long term (Columns 1 and 2) and short term (Columns 3 and 4). We observe that SHTRUST attains negative coefficients across all models, but it is statistically significant (at 1%) only across foreign major shareholders with a long-term investment horizon (see Columns 1 and 2 of Table 7). Further evidence from the Wald test confirms that the difference in the pairwise estimated coefficients is statistically significant at the 1% level of significance (Columns 1 and 3 *t*-stat =

22.837 and Columns 2 and 4 *t*-stat = 18.43). The results suggest that foreign shareholder trust has a more prominent effect in reducing firm market risk across firms controlled by investors with a long-term horizon.

5.3 Difference between Foreign Shareholder Trust and Local Trust

In this section, we investigate whether international investors originating from more trusting environments, compared to the country of corporate headquarters, are capable of bringing stability to the market and thus, further reduce firm risk (Umutlu et al., 2010; Li et al., 2011). To accommodate this effect, we repeat our analyses and the extensions (as presented in sub-sections 5.1.1, 5.1.2, and 5.2) using the difference between the level of trust in the country of origin of the largest shareholder and the country of corporate headquarters (TRUSTDIFF, where positive values indicate that the shareholder comes from a more trusting environment) as the main independent variable. This is consistent with previous studies (see, e.g., Ahern et al., 2015).

[Insert Table 8 about here]

Table 8 presents the results of our analyses, which are qualitatively similar to our previous analyses. More specifically, we observe that the TRUSTDIFF coefficients are negative and statistically significant at 1%, suggesting that the higher the difference between shareholder trust and local trust, the higher the reduction of firm risk (see Columns 1 and 2 of Table 8). This effect is amplified in regions where formal institutions are less effective (i.e., poor investor protection and weak institutional contexts; see Columns 3 and 4 and Columns 9 and 10 of Table 8, respectively) or among firms controlled by foreign investors with a long-term horizon (see Columns 11 and 12 of Table 8). Collectively, these results indicate that the effect of international investors originating from more trusting environments is an important determinant of firm risk and its effect varies with the effectiveness of the institutional context.

6. Sensitivity Analyses

Several robustness checks are also undertaken to assess the validity of the earlier reported results. First, we assess whether our results are sensitive to changes in the controlling shareholder. As discussed in our theoretical development, the negative impact of foreign shareholder trust on risk stems from large shareholders' decision to hold corporate shares for longer (inaction). As a consequence, one could claim that firms controlled by shareholders from high-trust environments are less likely to exhibit changes in control as these investors are more likely to "stick" to the firm, and thus the observed effect is due to a long-term relationship between the shareholder and the firm. Indicatively, 27% of our in-sample firms have experienced changes in their controlling shareholder.

To capture this effect, we conduct further analyses: a) we augment our model specification with an indicator variable that equals one if the current shareholder is not the same as in the previous period (SHCHANGE, see Columns 1 and 2 of Table 9); and b) we partition our sample into firms where the new controlling shareholder comes from a more (less) trusting environment as compared to the previous shareholder (Columns 3 and 4 (5 and 6) of Table 9).

The results indicate that changes in the controlling shareholder increase firm risk as the SHCHANGE attains a positive and statistically significant coefficient at 1%. Partitioning the sample reveals that the effect of foreign shareholder trust is significant only when the new controlling shareholder comes from a more trusting environment, while has no effect if they originate from a country with lower trust as compared to the previous controlling shareholder (in year *t*-1).

[Insert Table 9 about here]

Second, we perform a Heckman-type correction to address potential selection bias (similar to El Ghoul et al., 2017). First, we start with the entire DataStream universe and

estimate a probit model (first stage) to determine if the firm belongs in our sample against firm-level covariates (i.e., size, age, leverage, growth opportunities, alongside with year, country, and industry effects to control for unobservable time, country, and industry factors, respectively). Next, we predict the inverse Mills ratio (LAMBDA) and include it as an additional control in our main analysis to control for selection bias. Importantly, this analysis demonstrates that the original results remain unchanged. The additional documentation and results from this and all subsequent tests are available in the online appendix.

Third, and to further support the primary findings, alternative measures of firm risk are applied. This approach applies a simple model market regression (without the Fama and French (1993) three factors) and the subsequent recalculation of idiosyncratic risk (IRISKMM). The logarithmic transformation of our risk measures (ln(TRISK) and ln(IRISK)), similar to Pevzner et al. (2015), is also applied to address the concern that the original measure has a skewed distribution. In line with prior studies (e.g., Sila et al., 2016), we also consider proxies of firm risk based on operating performance and calculate the three- (five-) year standard deviation of ROA and ROE, namely the SD3ROA and SD3ROE (SD5ROA and SD5ROE). Fourth, we follow Kanagaretnam et al. (2019) and use the TRUST_INDEX (Medrano, 2011) as an alternative measurement of foreign shareholder trust. Fifth, we assess whether our results are sensitive to the selection of our instrument. Following Brockman et al. (in press), we repeat our 2SLS analyses using the genetic distance between the population of the country of the firm headquarters and that of the origin of the foreign shareholder (GENETDIST).[8] Sixth, we rerun our analysis after excluding the financial crisis period of 2007-2009. This exclusion is because the prior literature associates the crisis period with an increase in idiosyncratic return volatility (Chichernea et al., 2015). Seventh, we examine the sensitivity of our results across different

[8] GENDIST captures the probability that random selection by two alleles at a given locus from the population of one country and the population of the other country will be different (Spolaore and Wacziarg (2009). Data obtained from Enrico Spolaore's website (http://sites.tufts.edu/enricospolaore/category/personal-webpage/).

thresholds of foreign controlling shareholders, namely at 10%, 20% and 25%. Eighth, we conduct additional sensitivity tests in which we a) control for country FEs and use heteroskedasticity-corrected robust standard errors (clustered on firms); b) use heteroskedasticity-corrected robust standard errors clustered on countries; and c) control for country FEs and use heteroskedasticity-corrected robust standard errors clustered on countries. The results are qualitatively similar to the main analysis, verifying that foreign shareholder trust has a negative impact on firm market risk, even with the alternative definitions of the dependent variables; with the use of alternative measures of foreign shareholder trust; alternative instruments employed; different thresholds of foreign block-ownership; with the inclusion of country fixed effects; and using different clusters in standard errors.

A number of other variables that have been found, or suggested (explicitly or implicitly), to influence a stock's systematic risk are now investigated. These include operating leverage (OPLEV), measured as the ratio of net property, plant and equipment to total assets (Lev, 1974; Mandelker and Rhee, 1984); dividend pay-out ratio (DIVPAYOUT), measured as the ratio of common dividends divided by income before extraordinary items as a proxy for risk (Pastor and Veronesi, 2003; Hoberg and Prabhala, 2009); research and development expenditure (RDEXP) and capital expenditure (CAPEX), both divided by total assets, as proxies for investment and growth opportunities (Guay, 1999); the standard deviation of cash flows from operation (STDCF) scaled by total assets for the last three years (Hasan and Habib, 2019); and an indicator variable that equals 1 if the firm is listed in more than one stock exchange (CROSSLISTED). Additionally, market competition is controlled using the Herfindahl index (HHI) since Irvine and Pontiff (2009) show that firm competition affects idiosyncratic risk by increasing cash flow variability. We also augment the model for ownership structure variables, such as the stakes owned by foreign (FOR_OWN) and

institutional (INST_OWN) investors. The incorporation of all the above variables does not change the core results.

We further assess the effect of foreign shareholder trust on firm risk after controlling for cultural effects, and we augment the model with Hofstede's (2001) cultural dimensions to capture individualism, power distance, uncertainty avoidance, and masculinity measured either at the country of firm headquarters or the country of origin of the foreign shareholder. We also include country-pair characteristics that might affect the level of trust between investors from two different countries, namely the distance between each firm's country of headquarters and the country of origin of the foreign shareholder (GEODIST), as well as an indicator variable that equals 1 if the country of the firm's headquarters and the country of origin of the foreign shareholder share borders (SHAREBOARDER).[9] We also augment the model for country-level variables by including stock market development (measured as the total market capitalization divided by gross domestic product, MCAPCNT) and a country's legal origin (indicator variables for common law countries, COMLAW). Additionally, we control for the GINI coefficient of each country of corporate headquarters to capture any income equalities and for each country's credit rating of sovereign debt (i.e. using credit ratings through Standard and Poor's, Fitch, and Moody's). Adding these variables to the model does not affect our results. Finally, we probe the robustness of our main results after excluding firms from the US, Japan, India, Canada and Australia. Doing so addresses concerns that the results are driven by the large representation of these countries. This final analysis still confirms that foreign shareholder trust continues to have a significant negative effect on our two measures of risk.

[9] We obtain the latitude and longitude data between the two points from Google Maps (https://developers.google.com/public-data/docs/canonical/countries_csv) and employ the Harvershine formula to calculate the distance. $DIS = R \times 2 \times \arcsin\left(\min\left(1, \sqrt{a}\right)\right)$, where $R =$ approximately 6,378 kilometres (radius of the earth) and $a = \left(sin(dlat/2)\right)^2 + cos(lat1) \times cos(lat2) \times \left(sin(dlon/2)\right)^2$. In the latter expression dlat = lat2 − lat1 and dlon = lon2 − lon1, where lat1 and lon1 are the latitude and longitude of the firm location and lat2 and lon2 are the latitude and longitude of the location of the foreign shareholder.

This evidence provides further support for the hypothesis that a higher level of foreign shareholder trust reduces firm risk.

7. Conclusion

In this study, we highlight the role that foreign shareholders' trust has in mitigating firm risk. The empirical evidence from this study is consistent with a significant negative relationship between foreign shareholder trust and market risk. This relationship remains robust after undertaking a range of sensitivity analyses and after considering potential endogeneity and selection bias issues. The effect of trust also deviates with cross-country and investor horizon variations. In particular, the effect becomes more pronounced for firms located in countries with low investor protection and a weaker institutional environment and for firms controlled by investors with a long-term horizon. We further demonstrate that the effect of international investors originating from more trusting environments is an important determinant of firm risk, and the effect varies with the effectiveness of the institutional context.

Our results contribute to an emerging stream of the corporate finance literature that investigates the effects of trust on corporate matters (see, e.g., Pevzner et al., 2015; Bottazzi et al., 2016; Cingano and Pinotti, 2016; Dudley and Zhang, 2016; Qian et al., 2018; Hasan and Habib, 2019). In addition, a significant negative relationship between foreign shareholder trust and risk, highlights the role that trust plays as a factor that may mitigate excessive corporate risk-taking.

This study is one of the first to consider the impact of the trust of large foreign shareholders on corporate decision making. In summary, the paper makes the following contributions to this literature: First, this investigation documents additional empirical insights into how trust affects corporate market risk; Second, a multi-country perspective, allows consideration of more complex legal and property rights factors; Third, measuring total and

idiosyncratic risk in a cross-country setting provides a better understanding of the overall effect of trust on market risk; Fourth, consideration of different foreign shareholder investment horizons allows investigation of the role that long-term oriented foreign shareholders from high-trust countries play in reducing firm market risk.

In conclusion, the findings show that after considering firm and country-level characteristics, and controlling for industry and year effects, foreign controlling shareholders' trust reduces firm market risk. Firms controlled by large foreign shareholders, originating from high-trust environments, display lower levels of marker risk. Trust is also more important for firms located in countries with a less favourable, or effective, institutional environment, suggesting that trust may support the institutional environment. Finally, the geographic location where the controlling shareholders are based and its degree of societal trust matters in determining firm risk.

This paper also has important policy implications for international business in that corporations could be encouraged to attract foreign shareholders from more trusting countries to mitigate their market risk, especially for those domiciled in countries where there is a weak institutional environment. To support this position, policy makers could design policies that encourage portfolio or direct investment from high trusting countries to mitigate the market risk of domestic firms. One limitation of this study is that risk is measured at the country level. Consequently, future studies could identify and develop firm-level trust measures to examine the role that trust may play in firm-level corporate decision making. Furthermore, the effects of the economic crisis arising from the COVID-19 epidemic may allow future studies to investigate the extent that trust affects investor behaviour when there are sudden changes to market risk.

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Appendix A - Variable Definitions

Variable	Definition
Panel A: Risk Measures	
TRISK	Square root of 250 times the weekly return standard deviation (Data source: DataStream).
IRISK	Square root of 250 times the standard deviation of the residuals from the market model regression augmented with Fama-French return factors (Data source: DataStream).
Panel B: Main independent variable	
SHTRUST	Represents the level of trust in the country of origin of the foreign shareholder, where the level of trust is measured by the percentage of respondents that most people can be trusted (Data source: WVS).
TRUSTDIFF	Represents difference between the level of trust in the country of origin of the foreign shareholder and the country of corporate headquarters, where the level of trust is measured by the percentage of respondents to the question that "most people can be trusted" (Data source: WVS).
Panel C: Firm fundamentals	
ROA	Return on assets, measured as the ratio of income before extraordinary items over total assets (Data source: DataStream).
ln(ASSETS)	Natural logarithm of total assets (Data source: DataStream).
LEVERAGE	Leverage ratio, measured as total debt over total assets (Data source: DataStream).
MB	Market-to-book value of equity (Data source: DataStream).
ln(AGE)	Firm age, measured as the natural logarithm of 1 plus the number of years since incorporation (Data source: DataStream).
BIG4	Binary indicator that equals 1 for the existence of a reputable auditor, and 0 otherwise. Reputable auditors are considered the big four, named as PwC, Deloitte and Touché, Ernst and Young and KPMG (Data source: Thomson Reuters Eikon).
D: Country controls	
GDPGR	Annual growth rate of GDP (Data source World Bank).
INVPROT	Sum of the anti-self-dealing index from Djankov et al. (2008) and the rule of law index from Kaufmann and Kraay (2017), after standardize both indices to be between 0 and 1.
Panel E: Instrumental variables	
SHETHFR	Is the ethnic fractionalization data as described in Alesina et al. (2003).
ETHFRDIFF	Represents difference between the ethnic fractionalization in the country of origin of the foreign shareholder and the country of corporate headquarters. Ethnic fractionalization data are described in Alesina et al. (2003).
Panel F: Additional variables for sensitivity analyses	
SHCHANGE	Binary indicator that equals 1 if the controlling foreign shareholder has changed as compared to previous year, and 0 otherwise (Data source: Thomson Reuters Eikon)

Appendix B – First Stage Results

This table reports the first-stage results of the 2SLS estimates (Columns 3 and 4) presented in Table 4. Foreign shareholder trust (SHTRUST) is regressed on all Table 4 covariates and the ethnic fractionalization of the country of origin of the foreign shareholder (SHETHFR). The *z*-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles. The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix A.

	(1)	(2)
Dependent Variables:	SHTRUST	SHTRUST
SHETHFR	-0.094***	-0.094***
	(-7.73)	(-7.73)
ROA	-0.003**	-0.003**
	(-2.11)	(-2.11)
ln(ASSETS)	-0.001	-0.001
	(-1.23)	(-1.23)
LEVERAGE	-0.001	-0.001
	(-0.87)	(-0.87)
MB	0.001*	0.001*
	(1.95)	(1.95)
ln(AGE)	0.005**	0.005**
	(2.39)	(2.39)
BIG4	0.002	0.002
	(0.33)	(0.33)
GDPGR	0.001**	0.001**
	(2.05)	(2.05)
INVPROT	0.058***	0.058***
	(5.27)	(5.27)
(intercept)	0.222***	0.222***
	(4.97)	(4.97)
Year & Industry dummies	Yes	Yes
Adj. R^2	0.094	0.094
F-Statistic	59.79	59.79
Partial R^2	0.0266	0.0266
Observations	12,496	12,496

Table 1 Sample selection process

Sample selection stages	Number of firms	Number of firm years
Companies with common support between Eikon and DataStream (2000-2016) controlled by a foreign shareholder, for which data for the country of origin of the foreign shareholder are available through the World Values Survey.	5,243	19,065
Deleted: Companies with missing stock price information data from DataStream.	337	1,153
Deleted: Companies with missing financial data for our empirical model.	871	4,138
Deleted: Observations of companies don't meet the four companies per country and two observations per company criterion.	1,240	1,278
Final sample.	2,795	12,496

Table 2 Country distribution of observations

This table presents the country distribution of unique firms included in our sample, accompanied with the relevant number of observations. TRUST denotes the level of trust in the country of corporate headquarters and SHTRUST denotes the level of trust in the country of origin of the foreign shareholder, where the level of trust is measured by the percentage of respondents that most people can be trusted (based on the WVS).

No	Country	Firms	Obs	%	TRUST	SHTRUST
1	Argentina	7	44	0.35	0.185	0.227
2	Australia	297	1,185	9.48	0.494	0.349
3	Austria	5	16	0.13	0.339	0.374
4	Belgium	21	72	0.58	0.307	0.400
5	Brazil	49	242	1.94	0.077	0.351
6	Canada	281	1,088	8.71	0.412	0.361
7	Chile	21	157	1.26	0.149	0.273
8	China	160	770	6.16	0.566	0.358
9	Colombia	6	37	0.30	0.060	0.314
10	Denmark	7	20	0.16	0.665	0.336
11	Egypt	12	63	0.50	0.213	0.302
12	Finland	6	16	0.13	0.580	0.423
13	France	57	247	1.98	0.198	0.358
14	Germany	106	561	4.49	0.399	0.364
15	Hungary	5	25	0.20	0.276	0.331
16	India	211	1,160	9.28	0.185	0.374
17	Indonesia	37	98	0.78	0.421	0.284
18	Ireland	18	55	0.44	0.358	0.348
19	Israel	6	17	0.14	0.235	0.311
20	Italy	21	84	0.67	0.295	0.369
21	Japan	306	1,434	11.48	0.371	0.363
22	Jordan	23	122	0.98	0.146	0.293
23	Luxembourg	6	17	0.14	0.259	0.338
24	Malaysia	73	381	3.05	0.085	0.397
25	Mexico	15	84	0.67	0.136	0.347
26	Netherlands	37	203	1.62	0.566	0.330
27	New Zealand	21	98	0.78	0.522	0.422
28	Norway	11	28	0.22	0.737	0.419
29	Pakistan	5	12	0.10	0.236	0.304
30	Peru	19	135	1.08	0.077	0.265
31	Philippines	16	61	0.49	0.041	0.416
32	Poland	63	372	2.98	0.207	0.345
33	Russia	42	188	1.50	0.275	0.118
34	Singapore	78	355	2.84	0.350	0.319
35	South Africa	15	65	0.52	0.188	0.389
36	South Korea	104	519	4.15	0.272	0.379
37	Spain	20	88	0.70	0.215	0.312
38	Sweden	7	16	0.13	0.664	0.419
39	Switzerland	38	137	1.10	0.512	0.333
40	Thailand	66	370	2.96	0.343	0.351
41	Turkey	18	51	0.41	0.102	0.388
42	United Kingdom	127	479	3.83	0.299	0.375
43	United States of America	352	1,324	10.60	0.371	0.398
	Total	2,795	12,496	100	-	-

Table 3 Descriptive statistics (N = 12,496)

This table presents the descriptive statistics of the variables employed in our analyses. The continuous variables are winsorized at the 1st and 99th percentiles. All variables are defined in the Appendix A.

Variable	25th	Mean	Median	75th	StDev
TRISK	0.629	1.254	0.957	1.523	0.987
IRISK	0.544	1.153	0.843	1.397	0.97
SHTRUST	0.3	0.357	0.359	0.391	0.121
ROA	-0.049	-0.199	0.033	0.081	1.172
ln(ASSETS)	11.07	13.904	14.017	16.686	4.007
LEVERAGE	0	0.576	0.179	0.69	1.548
MB	0.68	1.907	1.3	2.42	6.829
ln(AGE)	2.197	2.865	2.996	3.689	1.108
BIG4	0	0.581	1	1	0.493
GDPGR	1.654	3.221	2.766	4.694	3.263
INVPROT	1.156	1.371	1.375	1.598	0.311

Table 4 Foreign shareholder trust and firm risk

This table reports the OLS estimates (Columns 1 and 2) and the 2SLS estimates (Columns 3 and 4) of the effect of foreign shareholder trust on firm market risk. The dependent variables in Columns 1 and 3 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2 and 4 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The key independent variable is SHTRUST, which represents the level of trust in the country of origin of the foreign shareholder, where the level of trust is measured by the percentage of respondents that most people can be trusted. We instrument foreign shareholder trust (Columns 3 and 4) with SHETHFR, representing the ethnic fractionalization of the country of origin of the foreign shareholder. The first-stage results are reported in Appendix B. The *t*-statistics or *z*-statistics, respectively, for Columns 1and 2, and 3 and 4, in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles. The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix A.

	(1)	(2)	(3)	(4)
Statistical Method:	OLS Estimates		2SLS Estimates	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK
SHTRUST	-0.312***	-0.298***	-1.985***	-1.707***
	(-3.28)	(-3.22)	(-3.03)	(-2.73)
ROA	-0.103***	-0.097***	-0.108***	-0.101***
	(-4.91)	(-4.74)	(-5.02)	(-4.85)
ln(ASSETS)	-0.089***	-0.096***	-0.091***	-0.098***
	(-19.65)	(-21.92)	(-18.23)	(-20.52)
LEVERAGE	0.009	0.004	0.007	0.003
	(1.26)	(0.68)	(0.91)	(0.41)
MB	-0.003	-0.003	-0.002	-0.002
	(-1.53)	(-1.49)	(-1.09)	(-1.10)
ln(AGE)	-0.072***	-0.065***	-0.060***	-0.055***
	(-6.20)	(-5.78)	(-4.60)	(-4.41)
BIG4	-0.308***	-0.317***	-0.310***	-0.319***
	(-14.06)	(-14.86)	(-12.66)	(-13.61)
GDPGR	0.004	0.003	0.007	0.006
	(0.99)	(0.82)	(1.57)	(1.37)
INVPROT	0.070*	0.072*	0.193***	0.179***
	(1.68)	(1.80)	(3.32)	(3.30)
(intercept)	2.874***	2.941***	3.347***	3.354***
	(14.44)	(15.26)	(12.53)	(13.20)
Year & Industry dummies	Yes	Yes	Yes	Yes
Hausman test	.	.	43.473***	35.24***
Adj. R^2	0.423	0.439	.	.
Mean VIF	1.313	1.327	1.313	1.327
Observations	12,496	12,496	12,496	12,496
First stage	(1)	(2)	(3)	(4)
SHETHFR	.	.	-0.094***	-0.094***
	.	.	(-7.73)	(-7.73)
F-Statistic	.	.	59.79	59.79
Partial R^2	.	.	0.0266	0.0266
Control Variables	.	.	Yes	Yes
Year & Industry dummies	.	.	Yes	Yes

Table 5 Variations in investor protection, foreign shareholder trust and firm risk

This table reports the 2SLS analysis results of the effect of foreign shareholder trust on firm market risk, after separating the sample, using the sample median of INVPROT in each year, into countries with low (high) investor protections in Columns 1 and 2 (3 and 4). The dependent variable in Columns 1 and 3 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2 and 4 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The key independent variable is SHTRUST, which represents the level of trust in the country of origin of the foreign shareholder, where the level of trust is measured by the percentage of respondents that most people can be trusted. We instrument foreign shareholder trust with SHETHFR, representing the ethnic fractionalization of the country of origin of the foreign shareholder. The *z*-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles. The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix A.

	(1)	(2)	(3)	(4)
	Low Investor Protection		High Investor Protection	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK
SHTRUST	-4.119***	-3.340**	-0.953	-0.958
	(-2.64)	(-2.43)	(-1.37)	(-1.41)
ROA	-0.186***	-0.177***	-0.048**	-0.042*
	(-3.67)	(-3.67)	(-2.02)	(-1.83)
ln(ASSETS)	-0.058***	-0.064***	-0.131***	-0.138***
	(-6.99)	(-8.48)	(-19.68)	(-21.36)
LEVERAGE	0.003	-0.001	0.009	0.006
	(0.24)	(-0.09)	(0.81)	(0.63)
MB	0.001	0.001	-0.004*	-0.004
	(0.35)	(0.22)	(-1.69)	(-1.64)
ln(AGE)	-0.037	-0.038	-0.054***	-0.050***
	(-1.19)	(-1.36)	(-3.51)	(-3.33)
BIG4	-0.126***	-0.147***	-0.321***	-0.326***
	(-3.41)	(-4.50)	(-9.07)	(-9.42)
GDPGR	0.054***	0.049***	-0.052***	-0.047***
	(5.50)	(5.56)	(-6.08)	(-5.72)
(intercept)	3.364***	3.236***	4.148***	4.188***
	(6.87)	(7.52)	(11.67)	(12.02)
Year & Industry dummies	Yes	Yes	Yes	Yes
Hausman test	39.273***	27.585***	10.478***	11.064***
Mean VIF	1.193	1.202	1.414	1.430
Observations	5,849	5,849	6,647	6,647
First stage	(1)	(2)	(3)	(4)
SHETHFR	-0.063***	-0.063***	-0.118***	-0.118***
	(-3.41)	(-3.41)	(-7.31)	(-7.31)
F-Statistic	11.64	11.64	53.42	53.42
Partial R^2	0.0107	0.0107	0.045	0.045
Control Variables	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes

Table 6 Variations in institutional context strength, foreign shareholder trust and firm risk

This table reports the 2SLS analysis results of the effect of foreign shareholder trust on firm market risk, after separating the sample into strong (weak) institutional contexts in Columns 1 and 2 (3 and 4). The dependent variable in Columns 1 and 3 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2 and 4 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The key independent variable is SHTRUST, which represents the level of trust in the country of origin of the foreign shareholder, where the level of trust is measured by the percentage of respondents that most people can be trusted. We instrument foreign shareholder trust with SHETHFR, representing the ethnic fractionalization of the country of origin of the foreign shareholder. The *z*-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles. The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix A.

	(1)	(2)	(3)	(4)
	Strong Institutional Context		Weak Institutional Context	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK
SHTRUST	-2.490	-2.229	-1.299***	-1.142***
	(-1.33)	(-1.24)	(-3.27)	(-3.00)
ROA	-0.085***	-0.078***	-0.133**	-0.124**
	(-3.74)	(-3.56)	(-2.21)	(-2.12)
ln(ASSETS)	-0.111***	-0.119***	-0.069***	-0.075***
	(-15.17)	(-16.93)	(-8.33)	(-9.36)
LEVERAGE	-0.000	-0.001	0.018*	0.010
	(-0.04)	(-0.12)	(1.69)	(1.03)
MB	-0.002	-0.002	-0.002	-0.002
	(-0.72)	(-0.72)	(-0.48)	(-0.63)
ln(AGE)	-0.050***	-0.044***	-0.106***	-0.102***
	(-3.49)	(-3.18)	(-3.69)	(-3.74)
BIG4	-0.311***	-0.328***	-0.197***	-0.193***
	(-7.84)	(-8.58)	(-6.63)	(-6.73)
GDPGR	-0.049***	-0.046***	0.030***	0.024***
	(-4.22)	(-4.17)	(4.96)	(4.13)
INVPROT	0.459**	0.426**	-0.043	-0.032
	(2.20)	(2.14)	(-0.65)	(-0.51)
(intercept)	3.548***	3.590***	3.072***	3.100***
	(8.48)	(8.95)	(10.56)	(11.41)
Year & Industry dummies	Yes	Yes	Yes	Yes
Hausman test	7.733***	6.708***	41.242***	34.229***
Mean VIF	1.383	1.398	1.205	1.211
Observations	7,753	7,753	4,743	4,743
First stage	(1)	(2)	(3)	(4)
SHETHFR	-0.045***	-0.045***	-0.204***	-0.204***
	(-3.00)	(-3.00)	(-9.80)	(-9.80)
F-Statistic	10.01	10.01	96.11	96.11
Partial R^2	0.006	0.006	0.1199	0.1199
Control Variables	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes

Table 7 Variations in investors' horizon, foreign shareholder trust and firm risk

This table reports the 2SLS analysis results of the effect of foreign shareholder trust on firm market risk, after separating the sample as per foreign major shareholders investment horizon, namely long-term (Columns 1 and 2) and short-term (Columns 3 and 4). Columns 5 and 6 report the t-statistics for Wald tests used to compare the difference in coefficients between regression results, respectively, of Columns 1 and 3 and Columns 2 and 4. The dependent variable in Columns 1 and 3 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2 and 4 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The key independent variable is SHTRUST, which represents the level of trust in the country of origin of the foreign shareholder, where the level of trust is measured by the percentage of respondents that most people can be trusted. We instrument foreign shareholder trust with SHETHFR, representing the ethnic fractionalization of the country of origin of the foreign shareholder. The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles. The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix A.

	(1)	(2)	(3)	(4)
	Long Term Investor Horizon		Short Term Investor Horizon	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK
SHTRUST	-1.251***	-1.027***	-35.114	-31.818
	(-3.01)	(-2.83)	(-0.08)	(-0.08)
ROA	-0.091***	-0.085***	-0.204	-0.189
	(-3.78)	(-3.61)	(-0.15)	(-0.15)
ln(ASSETS)	-0.087***	-0.095***	-0.235	-0.232
	(-17.02)	(-19.34)	(-0.16)	(-0.17)
LEVERAGE	0.010	0.005	-0.112	-0.106
	(1.27)	(0.70)	(-0.08)	(-0.09)
MB	-0.003	-0.003	0.007	0.006
	(-1.46)	(-1.48)	(0.10)	(0.09)
ln(AGE)	-0.058***	-0.053***	-0.194	-0.182
	(-4.42)	(-4.17)	(-0.16)	(-0.16)
BIG4	-0.287***	-0.296***	-0.384	-0.390
	(-11.65)	(-12.48)	(-0.71)	(-0.80)
GDPGR	0.001	0.000	0.033	0.031
	(0.31)	(0.07)	(0.09)	(0.09)
INVPROT	0.154***	0.145***	4.507	4.146
	(2.99)	(2.99)	(0.08)	(0.08)
(intercept)	2.917***	2.894***	11.496	10.699
	(11.05)	(11.41)	(0.11)	(0.11)
Year & Industry dummies	Yes	Yes	Yes	Yes
Hausman test	25.893***	19.862***	0.174	0.149
Mean VIF	1.299	1.314	1.455	1.465
Observations	9,894	9,894	439	439
First stage	(1)	(2)	(3)	(4)
SHETHFR	-1.251**	-1.251**	-35.114	-35.114
	(-2.22)	(-2.22)	(-0.08)	(-0.08)
F-Statistic	68.45	68.45	0.01	0.01
Partial R^2	0.0363	0.0363	0	0
Control Variables	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes

Table 8 Robustness of main results and extensions, using as main independent variable the difference between foreign shareholder trust and local trust

This table reports the 2SLS analysis results of the effect of the difference between the level of trust in the country of origin of the foreign shareholder and the country of corporate headquarters, on firm market risk. We replicate our main results in Columns 1 and 2, and split the sample into: a) low (high) investor protection in Columns 3 and 4 (5 and 6); b) strong (weak) institutional contexts in Columns 7 and 8 (9 and 10); and low (high) monitoring from institutional investors in Columns 11 and 12 (13 and 14). The dependent variable in Columns 1, 3, 5, 7, 9, 11, and 13 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, 6, 8, 10, 12, and 14 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The key independent variable is TRUSTDIFF, and represents the difference between the level of trust in the country of origin of the foreign shareholder and the country of corporate headquarters, where the level of trust is measured by the percentage of respondents to the question that "most people can be trusted". We instrument TRUSTDIFF with ETHFRDIFF, representing the difference between the ethnic fractionalization in the country of origin of the foreign shareholder and the country of corporate headquarters. The *z*-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles. The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix A.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Dependent	Main Results		Low Investor Protection		High Investor Protection		Strong Institutional Context		Weak Institutional Context		Long Term Investor Horizon		Short Term Investor Horizon	
Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
TRUSTDIFF	-0.835***	-0.755***	-1.661***	-1.418***	-0.339	-0.412	2.840	2.340	-1.985***	-1.854***	-0.544**	-0.488**	-1.621	-1.487
	(-3.39)	(-3.16)	(-5.11)	(-4.63)	(-1.01)	(-1.26)	(1.53)	(1.32)	(-6.10)	(-5.96)	(-2.33)	(-2.16)	(-0.93)	(-0.86)
ROA	-0.104***	-0.098***	-0.158***	-0.154***	-0.050**	-0.045**	-0.082***	-0.076***	-0.127**	-0.120**	-0.090***	-0.084***	-0.102*	-0.097
	(-4.96)	(-4.79)	(-2.93)	(-3.00)	(-2.15)	(-1.98)	(-3.86)	(-3.67)	(-2.13)	(-2.07)	(-3.74)	(-3.58)	(-1.70)	(-1.64)
ln(ASSETS)	-0.090***	-0.097***	-0.056***	-0.062***	-0.127***	-0.134***	-0.103***	-0.111***	-0.078***	-0.083***	-0.086***	-0.094***	-0.125***	-0.132***
	(-19.46)	(-21.67)	(-8.70)	(-10.13)	(-20.25)	(-21.96)	(-15.53)	(-18.14)	(-8.93)	(-9.84)	(-17.64)	(-19.87)	(-6.37)	(-6.93)
LEVERAGE	0.004	0.001	-0.003	-0.006	0.007	0.004	0.013	0.010	0.014	0.006	0.008	0.003	-0.015	-0.017
	(0.64)	(0.11)	(-0.25)	(-0.66)	(0.63)	(0.42)	(1.18)	(1.00)	(1.17)	(0.59)	(1.07)	(0.47)	(-0.39)	(-0.49)
MB	-0.002	-0.002	0.003	0.002	-0.004*	-0.004	-0.004	-0.003	0.002	0.002	-0.003	-0.003	0.000	-0.000
	(-0.96)	(-0.96)	(1.10)	(0.90)	(-1.67)	(-1.60)	(-1.33)	(-1.26)	(0.69)	(0.52)	(-1.34)	(-1.34)	(0.07)	(-0.00)
ln(AGE)	-0.059***	-0.053***	-0.025	-0.025	-0.054***	-0.051***	-0.035**	-0.031*	0.013	0.010	-0.057***	-0.051***	-0.105**	-0.101**
	(-4.79)	(-4.47)	(-1.07)	(-1.12)	(-3.58)	(-3.41)	(-1.98)	(-1.93)	(0.33)	(0.26)	(-4.42)	(-4.06)	(-2.30)	(-2.27)
BIG4	-0.333***	-0.340***	-0.256***	-0.257***	-0.330***	-0.337***	-0.310***	-0.328***	-0.277***	-0.269***	-0.302***	-0.310***	-0.421***	-0.424***
	(-14.34)	(-15.10)	(-7.18)	(-7.66)	(-9.53)	(-9.99)	(-8.34)	(-9.53)	(-7.15)	(-7.25)	(-12.52)	(-13.21)	(-4.78)	(-5.03)
GDPGR	0.006	0.005	0.034***	0.032***	-0.044***	-0.039***	-0.025**	-0.026**	-0.004	-0.008	0.000	-0.001	-0.005	-0.004
	(1.33)	(1.15)	(6.82)	(6.87)	(-4.92)	(-4.43)	(-2.32)	(-2.55)	(-0.60)	(-1.11)	(0.07)	(-0.13)	(-0.26)	(-0.20)
INVPROT	0.020	0.028					0.251***	0.236***	-0.129*	-0.110	0.049	0.055	-0.117	-0.044
	(0.41)	(0.59)					(2.99)	(3.12)	(-1.75)	(-1.57)	(0.99)	(1.17)	(-0.43)	(-0.16)
(intercept)	2.977***	3.037***	2.124***	2.223***	3.779***	3.809***	3.370***	3.418***	3.090***	3.134***	2.663***	2.688***	2.678***	2.705***
	(14.34)	(15.05)	(8.54)	(9.83)	(14.30)	(14.55)	(10.17)	(11.46)	(10.51)	(11.34)	(12.37)	(12.78)	(3.89)	(4.03)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	23.882***	20.702***	80.607***	60.336***	4.925**	7.386***	11.735***	8.263***	108.512***	97.305***	10.751***	9.503***	0.672	0.573
Mean VIF	1.320	1.333	1.200	1.209	1.425	1.441	1.376	1.391	1.237	1.243	1.306	1.321	1.442	1.452

(continued on next page)

Table 8 (continued)

Dependent Variables:	(1) Main Results TRISK	(2) Main Results IRISK	(3) Low Investor Protection TRISK	(4) Low Investor Protection IRISK	(5) High Investor Protection TRISK	(6) High Investor Protection IRISK	(7) Strong Institutional Context TRISK	(8) Strong Institutional Context IRISK	(9) Weak Institutional Context TRISK	(10) Weak Institutional Context IRISK	(11) Long Term Investor Horizon TRISK	(12) Long Term Investor Horizon IRISK	(13) Short Term Investor Horizon TRISK	(14) Short Term Investor Horizon IRISK
Observations	12,496	12,496	5,849	5,849	6,647	6,647	7,753	7,753	4,743	4,743	9,894	9,894	439	439
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
ETHFRDIFF	-0.153***	-0.153***	-0.187***	-0.187***	-0.137***	-0.137***	-0.039***	-0.039***	-0.220***	-0.220***	-0.171***	-0.171***	-0.072**	-0.072**
	(-13.40)	(-13.40)	(-9.10)	(-9.10)	(-10.74)	(-10.74)	(-3.05)	(-3.05)	(-9.73)	(-9.73)	(-13.45)	(-13.45)	(-2.32)	(-2.32)
F-Statistic	179.48	179.48	82.84	82.84	115.27	115.27	10.01	10.01	94.72	94.72	181.03	181.03	5.40	5.40
Partial R^2	0.0741	0.0741	0.0669	0.0669	0.0899	0.0899	0.0063	0.0063	0.1076	0.1076	0.0874	0.0874	0.024	0.024
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 9 Robustness of main results, after controlling for changes in foreign shareholders and partitioning the sample into companies where the new foreign shareholder comes from a more/less trusting environment

This table reports the 2SLS analysis results of the effect of foreign shareholder trust on firm market risk, after augmenting our model for an indicator variable signalling change in the controlling foreign shareholder as compared to the previous year (SHCHANGE, in Columns 1 and 2) and separating our sample into firms where the new controlling foreign shareholder comes from a more (less) trusting environment as compared to the previous shareholder in Columns 3 and 4 (5 and 6). The dependent variable in Columns 1, 3, and 5is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, and 6 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The key independent variable is SHTRUST, which represents the level of trust in the country of origin of the foreign shareholder, where the level of trust is measured by the percentage of respondents that most people can be trusted. We instrument foreign shareholder trust with SHETHFR, representing the ethnic fractionalization of the country of origin of the foreign shareholder. The *z*-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles. The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix A.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
SHTRUST	-1.837***	-1.582***	-3.759***	-3.532***	1.638	1.281
	(-2.90)	(-2.61)	(-3.16)	(-3.06)	(1.21)	(0.98)
SHCHANGE	0.115***	0.107***				
	(6.20)	(5.93)				
ROA	-0.097***	-0.091***	-0.088**	-0.083**	-0.182***	-0.176***
	(-4.41)	(-4.23)	(-2.48)	(-2.39)	(-3.81)	(-3.84)
SIZE	-0.092***	-0.100***	-0.120***	-0.126***	-0.101***	-0.107***
	(-18.57)	(-20.95)	(-12.36)	(-13.36)	(-9.87)	(-10.88)
LEVERAGE	0.011	0.006	0.013	0.007	0.060**	0.058**
	(1.46)	(0.93)	(0.74)	(0.39)	(2.34)	(2.32)
MB	-0.004*	-0.004*	-0.001	-0.000	-0.020**	-0.020**
	(-1.78)	(-1.78)	(-0.15)	(-0.03)	(-2.50)	(-2.53)
LnAGE	-0.058***	-0.053***	-0.058***	-0.048**	-0.036	-0.031
	(-4.42)	(-4.17)	(-2.59)	(-2.21)	(-1.60)	(-1.42)
BIG4	-0.311***	-0.320***	-0.424***	-0.431***	-0.294***	-0.302***
	(-12.72)	(-13.64)	(-7.73)	(-8.05)	(-5.62)	(-5.97)
GDPGR	0.006	0.004	0.006	0.005	0.021	0.022*
	(1.23)	(0.99)	(0.61)	(0.54)	(1.55)	(1.70)
INVPROT	0.180***	0.170***	0.258*	0.247*	-0.011	0.020
	(3.23)	(3.24)	(1.89)	(1.89)	(-0.06)	(0.11)
(intercept)	3.090***	3.059***	4.327***	4.273***	2.541***	2.546***
	(11.58)	(11.99)	(7.79)	(7.95)	(5.05)	(5.26)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	38.874***	31.68***	22.648***	21.529***	2.126*	1.573*
Mean VIF	1.288	1.301	1.380	1.394	1.377	1.392
Observations	11,997	11,997	1,927	1,927	1,191	1,191
First stage	(1)	(2)	(3)	(4)	(5)	(6)
SHETHFR	-0.096***	-0.096***	-0.105***	-0.105***	0.096***	0.096***
	(-7.75)	(-7.75)	(-6.38)	(-6.38)	(5.52)	(5.52)
F-Statistic	60.09	60.09	40.69	40.69	30.44	30.44
Partial R^2	0.0277	0.0277	0.0439	0.0439	0.0374	0.0374
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes

Supplementary material for:

Major Shareholders' Trust and Market Risk: Substituting Weak Institutions with Trust

This supplementary material provides the following empirical results:

- Table IA 1 provides the Pearson correlation matrix of the variables used in our main analyses.
- Table IA 2 presents results of the effect of foreign shareholder trust on firm market risk, after controlling for sample selection bias through incorporating the inverse Mills ratio (LABDA) alongside with the first-stage results of the Heckman correction process.
- Table IA 3 presents the effect of foreign shareholder trust on alternative specifications of firm risk, namely: a) idiosyncratic risk (IRISKMM) using a simple model market regression (without the Fama and French (1993) three factors); b) logarithmic transformation of our risk measures (ln(TRISK) and ln(IRISK)); c) the three (five) years standard deviation of ROA and ROE, namely the SD3ROA and SD3ROE (SD5ROA and SD5ROE).
- Table IA 4 presents the effect of foreign shareholder trust on firm market risk, using the following additional tests: a) alternative specifications of foreign shareholder trust (SHTRUST_INDEX through Medrano (2011) and linear interpolated values of shareholder trust SHTRUST_INTP); b) using the genetic distance between the population of the country of firm headquarters and that of the origin of foreign shareholder (GENETDIST) as an alternative instrument for SHTRUST; c) alternative samples (i.e., excluding the years 2015 and 2016 as they are not covered through WVS and excluding the crisis period).
- Table IA 5 presents the effect of foreign shareholder trust on firm market risk, using alternative thresholds of foreign blockholders, namely at 10%, 20% and 25%.

- Table IA 6 presents the effect of foreign shareholder trust on firm market risk, after considering for country fixed effects and clustering standard errors at country level.
- Table IA 7 presents the effect of foreign shareholder trust on firm market risk, after controlling for additional firm-level characteristics, such as operating leverage (OPLEV); dividend pay-out (DIVPAYOUT); research and development expenditure (RDEXP); capital expenditure (CAPEX); volatility of operating cash flows (STDCF); and product market competition (HHI).
- Table IA 8 presents the effect of foreign shareholder trust on firm market risk, after controlling for additional firm-level characteristics such as cross-listed status (CROSSLISTED) and ownership by foreign and institutional investors (FOR_OWN and INST_OWN).
- Table IA 9 presents the effect of foreign shareholder trust on firm market risk, after considering for the geographical distance (ln(GEODIST)) and share boarders (SHAREBOARDER) between the firm and the foreign shareholder, as well as after controlling for Hofstede's (2001) cultural dimensions at the country of foreign shareholder.
- Table IA 10 presents the effect of foreign shareholder trust on firm market risk, after controlling for additional country-level characteristics at the country of corporate headquarters, namely for Hofstede's (2001) cultural dimensions; stock market development (MCAPCNT); the country's legal origin (COMLAW); income inequalities (GINI); and for each country's credit rating of sovereign debt (SPRT, FITCHRT, and MOODYSRT).
- Table IA 11 presents the effect of foreign shareholder trust on firm market risk, after excluding countries with high representation in our sample, namely US, Japan, India, Canada, and Australia.

- Table IA 12 presents the effect of foreign shareholder trust on firm market risk, using alternative definitions of investor protection, namely namely the rule of law (RULAW) and the control for corruption (CORRUP) indices through the World Bank (Kaufmann and Kraay, 2017).
- Table IA 13 presents the effect of foreign shareholder trust on firm market risk, using alternative definitions of the quality of the institutional environment, namely the voice and accountability (VOICACC) and the government effectiveness (GOVEFF) indices through the World Bank (Kaufmann and Kraay, 2017).

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Appendix - Variable Definitions

Variable	Definition
SAMPLE	Binary indicator that equals 1 if the firm belongs in our sample, and 0 otherwise.
LAMBDA	The inverse Mills ratio which controls for sample selection bias.
IRISKMM	Square root of 250 times standard deviation of the residuals from the market model regression (Data source: DataStream).
ln(TRISK)	Natural logarithm of one plus TRISK.
ln(IRISK)	Natural logarithm of one plus IRISK.
SD3ROA	The volatility (standard deviation) of Return on Assets in three-year overlapping periods (Data source: DataStream).
SD5ROA	The volatility (standard deviation) of Return on Assets in five-year overlapping periods (Data source: DataStream).
SD3ROE	The volatility (standard deviation) of Return on Equity in three-year overlapping periods (Data source: DataStream).
SD5ROE	The volatility (standard deviation) of Return on Equity in five-year overlapping periods (Data source: DataStream).
SHTRUST_INDEX	Trust index is calculated by 100 + (% most people can be trusted) – (% cannot be too careful) and is measured at the country of origin of the foreign shareholder. Data source: Medrano (2011).
SHTRUST_INTP	Represents the level of trust in the country of origin of the foreign shareholder, where the level of trust is measured by the percentage of respondents that most people can be trusted. In contrast to the SHTRUST measure in the paper we linearly interpolate the values between two adjacent surveys (Data source: WVS).
GENETDIST	Is the genetic distance between the population of the country of firm headquarters and the country of origin of the foreign shareholder. The measure gauges the probability that random selection by two alleles at a given locus from the population of one country and the population of the other country will be different (Data source: Enrico Spolaore's website).
OPLEV	Is the ratio of net property, plant and equipment to total assets (Data source: DataStream).
DIVPAYOUT	Is the ratio of common dividends divided by income before extraordinary items. Following Hasan and Habib (2019), we replace missing values of dividend to common stock with 0. (Data source: DataStream).
RDEXP	Research and development expenditure divided by the book value of total assets. Following Sila et al. (2016), we replace missing values of research and development expenditure with 0 (Data source: DataStream).
CAPEX	Capital expenditure minus sale of property divided by total assets (Data source: DataStream).
STDCF	Standard deviation of cash flow from operation scaled by total assets for the last three years (Data source: DataStream).
HHI	Herfindahl index, a measure of competition among firms in the industry (Data source: DataStream).
CROSSLISTED	Binary indicator that equals 1 if the firm is listed in more than one stock exchanges, and 0 otherwise (Data source: DataStream).
FOR_OWN	Percentage of stocks held by foreign investors (Data source: Thomson Reuters Eikon).
INST_OWN	Percentage of stocks held by institutional investors (Data source: Thomson Reuters Eikon).
ln(GEODIST)	Natural logarithm of the distance between the country of firm headquarters and the country of origin of the foreign shareholder. (Data source: the latitude and longitude data derived through Google Maps: https://developers.google.com/public-data/docs/canonical/countries_csv).
SHAREBOARDER	Binary indicator that equals 1 if the country of firm headquarters and the country of origin of foreign shareholder share boarders, and 0 otherwise (Data source: CIA World Factbook)
SHIDV	This index explores the "degree to which people in a society are integrated into groups", measured at the country of origin of the foreign shareholder (Data source: Geert Hofstede's website).

Variable	Definition
SHPDI	The power distance index is defined as "the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally", measured at the country of origin of the foreign shareholder (Data source: Geert Hofstede's website).
SHUAI	The uncertainty avoidance index is defined as "a society's tolerance for ambiguity," in which people embrace or avert an event of something unexpected, unknown, or away from the status quo, measured at the country of origin of the foreign shareholder (Data source: Geert Hofstede's website).
SHMAS	In this dimension, masculinity is defined as "a preference in society for achievement, heroism, assertiveness and material rewards for success", measured at the country of origin of the foreign shareholder (Data source: Geert Hofstede's website).
IDV	This index explores the "degree to which people in a society are integrated into groups", measured at the country of firm headquarters (Data source: Geert Hofstede's website).
PDI	The power distance index is defined as "the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally", measured at the country of firm headquarters (Data source: Geert Hofstede's website).
UAI	The uncertainty avoidance index is defined as "a society's tolerance for ambiguity," in which people embrace or avert an event of something unexpected, unknown, or away from the status quo, measured at the country of firm headquarters (Data source: Geert Hofstede's website).
MAS	In this dimension, masculinity is defined as "a preference in society for achievement, heroism, assertiveness and material rewards for success", measured at the country of firm headquarters (Data source: Geert Hofstede's website).
COMLAW	Binary indicator that equals 1 if a country is a common law country, and 0 otherwise (Data source: La Porta et al. (1999)).
MCAPCNT	Stock market development measured as total market capitalization divided by GDP (Data source: World Bank).
GINI	GINI index (World Bank estimate) - measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality (Data source: World Bank).
SPRT	Numeric conversion of credit rating level of sovereign debt assigned by Standard and Poor's. The value 100 is assigned for AAA ratings, 95 for the next lower grade (AA) and so on until we reach the lowest grade (D) which takes the value of 5 (Data source: Trading Economics).
FITCHRT	Numeric conversion of credit rating level of sovereign debt assigned by Fitch. The value 100 is assigned for AAA ratings, 95 for the next lower grade (AA) and so on until we reach the lowest grade (D) which takes the value of 5 (Data source: Trading Economics).
MOODYSRT	Numeric conversion of credit rating level of sovereign debt assigned by Moody's. The value 100 is assigned for AAA ratings, 95 for the next lower grade (AA) and so on until we reach the lowest grade (D) which takes the value of 5 (Data source: Trading Economics).
RULAW	Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Percentile rank indicates the country's rank among all countries covered by the aggregate indicator, with 0 corresponding to lowest rank, and 100 to highest rank (Data source: World Bank).

Variable	Definition
CORRUP	Control of corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Percentile rank indicates the country's rank among all countries covered by the aggregate indicator, with 0 corresponding to the lowest rank, and 100 to the highest rank (Data source: World Bank).
VOICACC	Voice and accountability captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. Percentile rank indicates the country's rank among all countries covered by the aggregate indicator, with 0 corresponding to lowest rank, and 100 to highest rank (Data source: World Bank).
GOVEFF	Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Percentile rank indicates the country's rank among all countries covered by the aggregate indicator, with 0 corresponding to lowest rank, and 100 to highest rank (Data source: World Bank).

Table IA 1 Pearson correlation matrix (N = 12,496)

This table presents the Pearson correlation matrix for the variables used in our analyses. The continuous variables are winsorized at the 1st and 99th percentiles. All variables are defined in the Appendix A of the Manuscript.

Variable	1	2	3	4	5	6	7	8	9	10
1. TRISK	1.00									
2. IRISK	0.99***	1.00								
3. SHTRUST	-0.07***	-0.07***	1.00							
4. ROA	-0.36***	-0.37***	-0.03***	1.00						
5. ln(ASSETS)	-0.56***	-0.59***	-0.06***	0.44***	1.00					
6. LEVERAGE	-0.13***	-0.14***	-0.02**	0.10***	0.24***	1.00				
7. MB	-0.09***	-0.10***	0.02*	0.25***	0.09***	0.31***	1.00			
8. ln(AGE)	-0.29***	-0.29***	0.02*	0.15***	0.38***	0.06***	0.03***	1.00		
9. BIG4	-0.33***	-0.35***	-0.03***	0.19***	0.35***	0.09***	0.04***	0.09***	1.00	
10. GDPGR	-0.05***	-0.04***	0.00	0.06***	0.03***	-0.01	0.03***	-0.07***	-0.14***	1.00
11. INVPROT	0.20***	0.21***	0.13***	-0.12***	-0.34***	-0.10***	0.00	-0.16***	0.01	-0.18***

Table IA 2 Foreign shareholder trust and firm risk, after controlling for sample selection bias

This table presents the 2SLS analysis (Columns 2 and 3) of the effect of foreign shareholder trust on firm market risk, augmenting our model for the inverse Mills ratio to control for sample selection bias (LAMBDA). Column 1 presents the first stage, in which the dependent variable is an indicator equal to 1 if the frim belongs in our sample (0 otherwise) and utilises the entire universe of DataStream firms with data available for our empirical model. The dependent variable in Column 2 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Column 3 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix or in the Appendix A of the Manuscript

	(1)	(1)	(2)
	First-Stage	Heckman correction	
Dependent Variables:	SAMPLE	TRISK	IRISK
SHTRUST	.	-1.960***	-1.682***
		(-3.00)	(-2.70)
ROA	.	-0.108***	-0.101***
		(-5.04)	(-4.87)
ln(ASSETS)	0.030***	-0.089***	-0.096***
	(9.50)	(-17.51)	(-19.76)
LEVERAGE	-0.006	0.006	0.002
	(-1.06)	(0.81)	(0.31)
MB	-0.001	-0.002	-0.002
	(-0.77)	(-1.10)	(-1.11)
ln(AGE)	0.038***	-0.056***	-0.051***
	(4.47)	(-4.20)	(-4.00)
BIG4	.	-0.313***	-0.322***
		(-12.75)	(-13.71)
GDPGR	.	0.006	0.004
		(1.20)	(0.99)
INVPROT	.	0.172***	0.159***
		(2.97)	(2.91)
LAMBDA	.	0.081*	0.080**
		(1.91)	(1.98)
(intercept)	1.049***	3.264***	3.272***
	(4.29)	(12.28)	(12.95)
Year & Industry dummies	Yes	Yes	Yes
Country dummies	Yes	No	No
Hausman test	.	42.613***	34.438***
Mean VIF	1.110	1.329	1.341
Observations	40,580	12,496	12,496
First stage	(1)	(1)	(2)
SHETHFR	.	-0.094***	-0.094***
	.	(-7.75)	(-7.75)
F-Statistic	.	59.99	59.99
Partial R^2	.	0.0267	0.0267
Control Variables	.	Yes	Yes
Year & Industry dummies	.	Yes	Yes

Table IA 3 Robustness of main results using alternative measures of risk

This table reports the 2SLS analysis results of the effect of foreign shareholder trust on alternative specifications and logarithmic transformations of the dependent variables. The dependent variable in Column 1 is the standard deviation of the residuals from the market model regression, multiplied by the square root of 250 (IRISKMM). The dependent variables in Columns 2 and 3 are the natural logarithm of one plus TRISK and IRISK, respectively. The dependent variable in Column 4 is the standard deviation of ROA in three-year overlapping periods (SD3ROA). The dependent variable in Column 5 is the standard deviation of ROA in five-year overlapping periods (SD5ROA). The dependent variable in Column 6 is the standard deviation of ROE in three-year overlapping periods (SD3ROE). The dependent variable in Column 7 is the standard deviation of ROE in five-year overlapping periods (SD5ROE). The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix or in the Appendix A of the Manuscript

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent Variables:	IRISKMM	ln(TRISK)	ln(IRISK)	SD3ROA	SD5ROA	SD3ROE	SD5ROE
SHTRUST	-1.736***	-1.985***	-1.707***	-0.688***	-1.056***	-0.912***	-1.404***
	(-2.74)	(-3.03)	(-2.73)	(-2.59)	(-2.78)	(-2.64)	(-2.86)
ROA	-0.103***	-0.108***	-0.101***	-0.313***	-0.477***	-0.169***	-0.279***
	(-4.87)	(-5.02)	(-4.85)	(-17.44)	(-22.28)	(-7.79)	(-8.74)
ln(ASSETS)	-0.100***	-0.091***	-0.098***	-0.027***	-0.038***	-0.045***	-0.062***
	(-20.53)	(-18.23)	(-20.52)	(-12.58)	(-12.28)	(-17.26)	(-16.64)
LEVERAGE	0.003	0.007	0.003	-0.005	0.001	0.003	-0.013
	(0.44)	(0.91)	(0.41)	(-1.48)	(0.26)	(0.41)	(-1.21)
MB	-0.002	-0.002	-0.002	0.000	-0.002	-0.001	0.002
	(-1.13)	(-1.09)	(-1.10)	(0.03)	(-0.85)	(-0.46)	(0.47)
ln(AGE)	-0.056***	-0.060***	-0.055***	0.013**	0.020***	-0.016**	-0.034***
	(-4.45)	(-4.60)	(-4.41)	(2.57)	(2.74)	(-2.49)	(-3.36)
BIG4	-0.322***	-0.310***	-0.319***	-0.051***	-0.081***	-0.099***	-0.138***
	(-13.56)	(-12.66)	(-13.61)	(-6.18)	(-6.81)	(-7.32)	(-6.98)
GDPGR	0.006	0.007	0.006	-0.003*	-0.003	-0.007***	-0.011***
	(1.40)	(1.57)	(1.37)	(-1.96)	(-1.44)	(-2.98)	(-3.15)
INVPROT	0.180***	0.193***	0.179***	0.024	0.058**	0.094***	0.118***
	(3.26)	(3.32)	(3.30)	(1.16)	(1.97)	(3.00)	(2.59)
(intercept)	3.427***	3.347***	3.354***	0.678***	0.893***	1.180***	1.687***
	(13.29)	(12.53)	(13.20)	(7.72)	(7.64)	(10.19)	(10.11)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	35.185***	43.473***	35.24***	9.212***	12.87***	7.931***	9.488***
Mean VIF	1.327	1.313	1.327	1.372	1.426	1.231	1.242
Observations	12,496	12,496	12,496	12,258	11,437	12,024	11,212
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)
SHETHFR	-0.094***	-0.094***	-0.094***	-0.094***	-0.098***	-0.095***	-0.099***
	(-7.73)	(-7.73)	(-7.73)	(-16.95)	(-16.72)	(-16.92)	(-16.68)
F-Statistic	59.79	59.79	59.79	287.28	279.66	286.32	278.06
Partial R^2	0.0266	0.0266	0.0266	0.0269	0.0282	0.0274	0.0288
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IA 4 Robustness of main results using alternative measures of foreign shareholder trust, as well as excluding crisis period

This table reports the 2SLS analysis results of the effect of foreign shareholder trust on firm risk a) using alternative specifications of foreign shareholder trust (SHTRUST_INDEX in Columns 1 and 2 and linearly interpolated values of shareholder trust between two adjacent surveys of WVS (SHTRUST_INTP) in Columns 3 and 4); b) using the genetic distance between the population of the country of firm headquarters and that of the origin of foreign shareholder (GENETDIST) as an alternative instrument for SHTRUST (Columns 5 and 6); and c) alternative samples (i.e., excluding the years 2015 and 2016 as they are not covered through WVS (Columns 7 and 8) and excluding the crisis period (Columns 9 and 10)). The dependent variable in Columns 1, 3, 5, 7, and 9 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, 6, 8 and 10 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix or in the Appendix A of the Manuscript.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Alternative trust measure		SHTRUST interpolated		Using alternative instrument for SHTRUST		Excluding 2015&2016 (not covered through WVS)		Excluding the crisis period (2007-2009)	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
SHTRUST_INDEX	-0.022***	-0.019***								
	(-2.64)	(-2.66)								
SHTRUST_INTP			-2.156***	-1.855***						
			(-2.91)	(-2.67)						
SHTRUST					-12.118**	-12.562**	-2.658***	-2.312***	-1.032***	-0.869**
					(-2.18)	(-2.21)	(-2.79)	(-2.61)	(-2.77)	(-2.42)
ROA	-0.116***	-0.108***	-0.096***	-0.091***	-0.115***	-0.108***	-0.101***	-0.095***	-0.123***	-0.115***
	(-5.08)	(-4.92)	(-4.52)	(-4.41)	(-2.74)	(-2.60)	(-4.59)	(-4.46)	(-4.84)	(-4.66)
ln(ASSETS)	-0.090***	-0.097***	-0.102***	-0.107***	-0.079***	-0.086***	-0.097***	-0.103***	-0.087***	-0.092***
	(-15.40)	(-17.84)	(-15.25)	(-16.97)	(-6.71)	(-7.17)	(-17.66)	(-19.71)	(-17.49)	(-19.27)
LEVERAGE	0.008	0.004	0.006	0.002	0.023	0.018	0.005	0.000	0.007	0.005
	(0.86)	(0.45)	(0.67)	(0.24)	(1.12)	(0.86)	(0.53)	(0.04)	(0.87)	(0.62)
MB	-0.002	-0.002	-0.002	-0.002	-0.000	0.000	-0.002	-0.002	-0.004*	-0.004*
	(-0.82)	(-0.86)	(-0.95)	(-0.98)	(-0.04)	(0.06)	(-1.05)	(-1.02)	(-1.84)	(-1.86)
ln(AGE)	-0.052***	-0.048***	-0.057***	-0.052***	-0.036	-0.030	-0.060***	-0.055***	-0.058***	-0.054***
	(-3.03)	(-3.01)	(-4.03)	(-3.92)	(-1.05)	(-0.87)	(-4.25)	(-4.07)	(-4.53)	(-4.35)
BIG4	-0.321***	-0.328***	-0.278***	-0.292***	-0.210***	-0.217***	-0.334***	-0.343***	-0.290***	-0.296***
	(-10.41)	(-11.46)	(-10.00)	(-11.07)	(-3.31)	(-3.35)	(-12.27)	(-13.26)	(-11.82)	(-12.50)
GDPGR	0.007	0.006	0.003	0.002	0.017	0.016	0.008	0.007	0.018***	0.018***
	(1.30)	(1.17)	(0.62)	(0.51)	(1.63)	(1.48)	(1.52)	(1.39)	(3.34)	(3.47)
INVPROT	0.285***	0.260***	0.061	0.066	0.342	0.361	0.221***	0.208***	0.082*	0.074
	(2.84)	(2.84)	(1.16)	(1.36)	(1.54)	(1.59)	(3.10)	(3.11)	(1.71)	(1.62)
(intercept)	3.862***	3.803***	3.773***	3.720***	5.403***	5.539***	3.606***	3.578***	2.993***	2.998***
	(8.54)	(9.08)	(10.29)	(10.76)	(4.30)	(4.32)	(10.87)	(11.41)	(12.97)	(13.44)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	44.278***	35.828***	30.495***	23.804***	112.45***	129.056***	34.661***	28.43***	34.204***	27.522***
Mean VIF	1.316	1.330	1.311	1.324	1.308	1.323	1.325	1.339	1.286	1.296
Observations	12,420	12,420	12,496	12,496	8,462	8,462	10,839	10,839	9,073	9,073

(continued on next page)

Table IA 4 (continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Alternative trust measure		SHTRUST interpolated		Using alternative instrument for SHTRUST		Excluding 2015&2016 (not covered through WVS)		Excluding the crisis period (2007-2009)	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
SHETHFR	-9.036***	-9.036***	-0.086***	-0.086***			-0.071***	-0.071***	-0.163***	-0.163***
	(-4.17)	(-4.17)	(-4.92)	(-4.92)			(-6.09)	(-6.09)	(-11.28)	(-11.28)
GENETDIST					-0.397**	-0.397**				
					(-2.40)	(-2.40)				
F-Statistic	17.39	17.39	24.20	24.20	15.76	15.76	37.13	37.13	127.17	127.17
Partial R^2	0.0076	0.0076	0.0119	0.0119	0.015	0.015	0.0163	0.0163	0.0693	0.0693
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IA 5 Foreign shareholder trust and firm risk, using alternative thresholds of foreign blockholders

This table reports the 2SLS analysis results of foreign shareholder trust on firm market risk, using alternative thresholds of foreign blockholders, namely 10% (Columns 1 and 2), 20% (Columns 3 and 4) and 25% (Columns 5 and 6). The dependent variable in Columns 1, 3 and 5 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4 and 6 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in Appendix A of the Manuscript.

	(1)	(2)	(3)	(4)	(5)	(6)
	Foreign shareholder ≥ 10%		Foreign shareholder ≥ 20%		Foreign shareholder ≥ 25%	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
SHTRUST	-1.583***	-1.468**	-1.529**	-1.467**	-1.583**	-1.544**
	(-2.67)	(-2.56)	(-2.48)	(-2.43)	(-2.50)	(-2.49)
ROA	-0.097***	-0.091***	-0.087***	-0.083***	-0.071***	-0.067**
	(-4.23)	(-4.09)	(-3.32)	(-3.22)	(-2.59)	(-2.51)
ln(ASSETS)	-0.093***	-0.099***	-0.091***	-0.097***	-0.088***	-0.093***
	(-15.93)	(-17.52)	(-12.48)	(-13.50)	(-10.77)	(-11.62)
LEVERAGE	0.001	-0.002	0.001	-0.001	-0.000	-0.002
	(0.15)	(-0.27)	(0.09)	(-0.14)	(-0.03)	(-0.25)
MB	-0.002	-0.002	-0.000	-0.000	-0.001	-0.001
	(-0.75)	(-0.72)	(-0.08)	(-0.06)	(-0.38)	(-0.36)
ln(AGE)	-0.076***	-0.071***	-0.087***	-0.081***	-0.098***	-0.091***
	(-4.87)	(-4.69)	(-4.16)	(-4.00)	(-4.31)	(-4.13)
BIG4	-0.327***	-0.331***	-0.365***	-0.366***	-0.371***	-0.371***
	(-11.90)	(-12.41)	(-10.56)	(-10.79)	(-9.71)	(-9.89)
GDPGR	0.008	0.006	0.004	0.001	0.002	-0.001
	(1.42)	(1.10)	(0.55)	(0.19)	(0.27)	(-0.11)
INVPROT	0.193***	0.187***	0.244***	0.240***	0.261***	0.261***
	(3.22)	(3.26)	(3.39)	(3.44)	(3.39)	(3.48)
(intercept)	3.219***	3.248***	3.147***	3.177***	3.166***	3.190***
	(12.37)	(12.86)	(10.82)	(11.14)	(10.25)	(10.49)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	34.03***	31.489***	31.731***	31.128***	33.426***	33.71***
Mean VIF	1.301	1.312	1.301	1.309	1.302	1.310
Observations	9,734	9,734	6,517	6,517	5,679	5,679
First stage	(1)	(2)	(3)	(4)	(5)	(6)
SHETHFR	-0.116***	-0.116***	-0.144***	-0.144***	-0.151***	-0.151***
	(-8.39)	(-8.39)	(-8.19)	(-8.19)	(-7.82)	(-7.82)
F-Statistic	70.40	70.40	67.03	67.03	61.22	61.22
Partial R^2	0.0368	0.0368	0.0497	0.0497	0.0544	0.0544
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes

Table IA 6 Robustness of main results, after considering for country fixed effects and clustering standard errors at country level

This table reports the 2SLS analysis results of the effect of foreign shareholder trust on firm market risk, after a) accounting for country FEs and using heteroskedasticity corrected robust standard errors clustered on firms (Columns 1 and 2); b) using heteroskedasticity corrected robust standard errors clustered on countries (Columns 3 and 4); and c) accounting for country FEs and using heteroskedasticity corrected robust standard errors clustered on countries (Columns 5 and 6). The dependent variable in Columns 1, 3 and 5 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4 and 6 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms (Columns 1 and 2) or on countries (Columns 3 to 6). The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix A of the Manuscript.

	(1)	(2)	(3)	(4)	(5)	(6)
	Include country FEs		Cluster SEs at country level		Include country FEs and cluster SEs at country level	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
SHTRUST	-2.088***	-1.856***	-1.985***	-1.707***	-2.088***	-1.856***
	(-3.36)	(-3.13)	(-2.82)	(-2.72)	(-2.80)	(-2.67)
ROA	-0.054***	-0.046**	-0.108***	-0.101***	-0.054**	-0.046**
	(-2.58)	(-2.26)	(-4.08)	(-3.96)	(-2.21)	(-1.96)
ln(ASSETS)	-0.132***	-0.143***	-0.091***	-0.098***	-0.132***	-0.143***
	(-19.90)	(-22.55)	(-9.42)	(-10.65)	(-12.15)	(-14.57)
LEVERAGE	0.026***	0.024***	0.007	0.003	0.026***	0.024***
	(3.66)	(3.58)	(0.92)	(0.40)	(3.06)	(3.00)
MB	-0.003	-0.003	-0.002	-0.002	-0.003	-0.003
	(-1.51)	(-1.51)	(-1.09)	(-1.09)	(-1.50)	(-1.51)
ln(AGE)	-0.063***	-0.056***	-0.060***	-0.055***	-0.063***	-0.056***
	(-4.87)	(-4.57)	(-6.70)	(-6.31)	(-5.76)	(-5.39)
BIG4	-0.182***	-0.188***	-0.310***	-0.319***	-0.182***	-0.188***
	(-7.26)	(-7.80)	(-11.39)	(-12.40)	(-6.33)	(-6.74)
GDPGR	0.006	0.002	0.007*	0.006	0.006	0.002
	(1.32)	(0.56)	(1.76)	(1.53)	(1.29)	(0.58)
INVPROT	-0.651*	-0.686**	0.193***	0.179***	-0.651*	-0.686**
	(-1.92)	(-2.13)	(2.70)	(2.88)	(-1.88)	(-2.07)
(intercept)	4.189***	4.274***	3.347***	3.354***	4.189***	4.274***
	(12.79)	(13.99)	(12.94)	(13.96)	(9.79)	(10.77)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	No	No	Yes	Yes
Hausman test	49.387***	42.793***	43.472***	35.239***	49.387***	42.793***
Mean VIF	1.313	1.327	1.313	1.327	1.313	1.327
Observations	12,496	12,496	12,496	12,496	12,496	12,496
First stage	(1)	(2)	(3)	(4)	(5)	(6)
SHETHFR	-0.100***	-0.100***	-0.094***	-0.094***	-0.100***	-0.100***
	(-7.67)	(-7.67)	(-4.91)	(-4.91)	(-5.50)	(-5.50)
F-Statistic	58.86	58.86	24.09	24.09	30.27	30.27
Partial R^2	0.029	0.029	0.0266	0.0266	0.029	0.029

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Table IA 6 (continued)

	(1)	(2)	(3)	(4)	(5)	(6)
	Include country FEs		Cluster SEs at country level		Include country FEs and cluster SEs at country level	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	No	No	Yes	Yes

Table IA 7 Robustness of main results, after controlling for additional firm-level characteristics

This table presents the 2SLS analysis regarding the effect of foreign shareholder trust on firm market risk, augmenting our model for additional firm-level control variables. The dependent variable in Columns 1, 3, 5, 7, 9, and 11is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, 6, 8, 10, and 12 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). OPLEV is the ratio of net property, plant and equipment to total assets. DIVPAYOUT is the ratio of common dividends divided by income before extraordinary items. RDEXP is research and development expenditure divided by the book value of total assets. CAPEX is capital expenditure minus sale of property divided by total assets. STDCF is the standard deviation of cash flow from operation scaled by total assets for the last three years. HHI is the Herfindahl index and represents a measure of competition among firms in the industry. The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix or in the Appendix A of the Manuscript.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
SHTRUST	-1.906***	-1.651***	-1.969***	-1.692***	-1.996***	-1.717***	-1.866***	-1.600***	-1.606***	-1.371**	-1.982***	-1.704***
	(-3.04)	(-2.77)	(-3.03)	(-2.73)	(-3.04)	(-2.75)	(-2.99)	(-2.69)	(-2.77)	(-2.48)	(-3.06)	(-2.76)
OPLEV	-0.047	-0.031										
	(-0.75)	(-0.52)										
DIVPAYOUT			-0.146***	-0.137***								
			(-10.15)	(-10.18)								
RDEXP					0.454**	0.393**						
					(2.40)	(2.15)						
CAPEX							-0.026	-0.057				
							(-0.16)	(-0.37)				
STDCF									0.125***	0.123***		
									(3.78)	(3.83)		
HHI											-0.393***	-0.374***
											(-6.55)	(-6.55)
ROA	-0.123***	-0.116***	-0.108***	-0.102***	-0.103***	-0.097***	-0.124***	-0.116***	-0.061**	-0.053**	-0.104***	-0.097***
	(-4.87)	(-4.72)	(-5.07)	(-4.90)	(-4.77)	(-4.62)	(-5.00)	(-4.84)	(-2.17)	(-1.97)	(-4.81)	(-4.65)
ln(ASSETS)	-0.089***	-0.096***	-0.088***	-0.095***	-0.090***	-0.097***	-0.088***	-0.096***	-0.085***	-0.092***	-0.097***	-0.104***
	(-17.59)	(-19.84)	(-17.78)	(-20.11)	(-17.71)	(-19.97)	(-17.54)	(-19.79)	(-17.40)	(-19.75)	(-18.72)	(-20.89)
LEVERAGE	0.010	0.006	0.004	0.000	0.008	0.004	0.012*	0.008	0.012*	0.007	0.010	0.006
	(1.47)	(0.94)	(0.57)	(0.06)	(1.06)	(0.55)	(1.65)	(1.14)	(1.69)	(1.12)	(1.32)	(0.84)
MB	-0.004**	-0.004**	-0.002	-0.002	-0.003	-0.002	-0.004**	-0.004**	-0.004**	-0.004**	-0.003	-0.003
	(-2.27)	(-2.30)	(-0.85)	(-0.87)	(-1.22)	(-1.22)	(-2.19)	(-2.22)	(-2.00)	(-2.02)	(-1.27)	(-1.28)
ln(AGE)	-0.064***	-0.059***	-0.057***	-0.052***	-0.058***	-0.054***	-0.064***	-0.059***	-0.064***	-0.058***	-0.060***	-0.055***
	(-4.91)	(-4.68)	(-4.38)	(-4.19)	(-4.48)	(-4.30)	(-4.97)	(-4.78)	(-4.92)	(-4.68)	(-4.60)	(-4.41)
BIG4	-0.299***	-0.307***	-0.303***	-0.312***	-0.313***	-0.322***	-0.306***	-0.314***	-0.305***	-0.313***	-0.281***	-0.292***
	(-11.90)	(-12.78)	(-12.59)	(-13.55)	(-12.84)	(-13.79)	(-12.21)	(-13.11)	(-12.30)	(-13.14)	(-11.37)	(-12.31)
GDPGR	0.007	0.006	0.008	0.006	0.008*	0.007	0.007	0.006	0.004	0.003	0.004	0.003
	(1.49)	(1.32)	(1.62)	(1.43)	(1.78)	(1.56)	(1.59)	(1.47)	(0.80)	(0.64)	(0.78)	(0.58)
INVPROT	0.189***	0.175***	0.197***	0.183***	0.188***	0.175***	0.176***	0.162***	0.183***	0.169***	0.141**	0.130**
	(3.33)	(3.30)	(3.45)	(3.42)	(3.23)	(3.21)	(3.17)	(3.12)	(3.38)	(3.33)	(2.50)	(2.46)

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Table IA 7 (continued)

Dependent Variables:	(1) TRISK	(2) IRISK	(3) TRISK	(4) IRISK	(5) TRISK	(6) IRISK	(7) TRISK	(8) IRISK	(9) TRISK	(10) IRISK	(11) TRISK	(12) IRISK
(intercept)	3.282***	3.291***	3.313***	3.322***	3.333***	3.342***	3.301***	3.315***	2.894***	2.875***	3.757***	3.744***
	(12.44)	(13.10)	(12.58)	(13.25)	(12.46)	(13.12)	(12.50)	(13.19)	(11.65)	(12.05)	(13.00)	(13.65)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	46.076***	37.802***	43.447***	35.167***	43.985***	35.641***	43.307***	34.968***	36.285***	29.03***	42.372***	34.219***
Mean VIF	1.275	1.288	1.296	1.308	1.297	1.310	1.276	1.288	1.462	1.475	1.309	1.321
Observations	11,756	11,756	12,496	12,496	12,496	12,496	11,678	11,678	11,505	11,505	12,496	12,496
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
SHETHFR	-0.099***	-0.099***	-0.094***	-0.094***	-0.094***	-0.094***	-0.097***	-0.097***	-0.103***	-0.103***	-0.094***	-0.094***
	(-7.93)	(-7.93)	(-7.73)	(-7.73)	(-7.73)	(-7.73)	(-7.80)	(-7.80)	(-8.14)	(-8.14)	(-7.76)	(-7.76)
F-Statistic	62.86	62.86	59.79	59.79	59.82	59.82	60.88	60.88	66.24	66.24	60.24	60.24
Partial R^2	0.0292	0.0292	0.0266	0.0266	0.0266	0.0266	0.0287	0.0287	0.0315	0.0315	0.0267	0.0267
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IA 8 Robustness of main results, after controlling for additional firm-level characteristics

This table presents the 2SLS analysis regarding the effect of foreign shareholder trust on firm market risk, after augmenting the model for: a) a cross-listed indicator (CROSSLISTED – Columns 1 and 2); b) the stake owned by foreign investors (FOR_OWN – Columns 3 and 4); c) the stake owned by institutional investors (INST_OWN – Columns 5 and 6); and d) both foreign and institutional ownership (Columns 7 and 8). The dependent variable in Columns 1, 3, 5 and 7 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, 6 and 8 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix or in the Appendix A of the Manuscript.

Dependent Variables:	(1) TRISK	(2) IRISK	(3) TRISK	(4) IRISK	(5) TRISK	(6) IRISK	(7) TRISK	(8) IRISK
SHTRUST	-2.061***	-1.801***	-1.919***	-1.666***	-1.365**	-1.126**	-1.314**	-1.070**
	(-3.12)	(-2.86)	(-2.99)	(-2.71)	(-2.29)	(-1.97)	(-2.21)	(-2.02)
CROSSLISTED	-0.063**	-0.077***						
	(-2.34)	(-3.04)						
FOR_OWN			-0.107*	-0.067			0.313***	0.347***
			(-1.87)	(-1.22)			(4.07)	(4.71)
INST_OWN					-0.439***	-0.412***	-0.613***	-0.605***
					(-8.77)	(-8.59)	(-8.69)	(-8.97)
ROA	-0.107***	-0.101***	-0.108***	-0.101***	-0.099***	-0.093***	-0.094***	-0.088***
	(-5.01)	(-4.83)	(-5.07)	(-4.88)	(-4.69)	(-4.53)	(-4.44)	(-4.25)
ln(ASSETS)	-0.091***	-0.097***	-0.092***	-0.099***	-0.085***	-0.093***	-0.081***	-0.088***
	(-18.04)	(-20.28)	(-18.46)	(-20.64)	(-18.15)	(-20.51)	(-17.18)	(-19.42)
LEVERAGE	0.007	0.004	0.007	0.003	0.006	0.002	0.005	0.001
	(0.98)	(0.51)	(0.91)	(0.40)	(0.80)	(0.26)	(0.76)	(0.21)
MB	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.001	-0.001
	(-1.09)	(-1.10)	(-1.08)	(-1.09)	(-0.82)	(-0.85)	(-0.74)	(-0.75)
ln(AGE)	-0.058***	-0.052***	-0.063***	-0.057***	-0.066***	-0.061***	-0.059***	-0.053***
	(-4.39)	(-4.15)	(-4.89)	(-4.60)	(-5.41)	(-5.15)	(-4.87)	(-4.53)
BIG4	-0.304***	-0.312***	-0.304***	-0.315***	-0.275***	-0.286***	-0.279***	-0.291***
	(-12.28)	(-13.15)	(-12.22)	(-13.21)	(-11.86)	(-12.81)	(-12.03)	(-13.03)
GDPGR	0.007	0.005	0.009*	0.007	0.009*	0.007*	0.006	0.004
	(1.36)	(1.11)	(1.78)	(1.50)	(1.94)	(1.72)	(1.25)	(0.93)
INVPROT	0.212***	0.202***	0.172***	0.166***	0.132**	0.122**	0.169***	0.163***
	(3.54)	(3.60)	(3.02)	(3.10)	(2.51)	(2.46)	(3.19)	(3.26)
(intercept)	3.343***	3.349***	3.426***	3.403***	3.382***	3.386***	3.165***	3.146***
	(12.39)	(13.00)	(12.55)	(13.11)	(13.06)	(13.68)	(12.23)	(12.72)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	45.839***	38.115***	42.204***	34.873***	24.198***	18.45***	23.12***	17.393***
Mean VIF	1.301	1.314	1.308	1.320	1.313	1.326	1.437	1.449
Observations	12,496	12,496	12,496	12,496	12,496	12,496	12,496	12,496

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Table IA 8 (continued)

Dependent Variables:	(1) TRISK	(2) IRISK	(3) TRISK	(4) IRISK	(5) TRISK	(6) IRISK	(7) TRISK	(8) IRISK
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SHETHFR	-0.093***	-0.093***	-0.095***	-0.095***	-0.097***	-0.097***	-0.097***	-0.097***
	(-7.65)	(-7.65)	(-7.87)	(-7.87)	(-8.06)	(-8.06)	(-8.04)	(-8.04)
F-Statistic	58.52	58.52	61.93	61.93	64.89	64.89	64.68	64.68
Partial R^2	0.0263	0.0263	0.0275	0.0275	0.0286	0.0286	0.0285	0.0285
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IA 9 Robustness of main results, after considering for the geographical distance and share boarders between the firm and the foreign shareholder, as well as after controlling for cultural dimensions at the country of foreign shareholder

This table presents the 2SLS analysis regarding the effect of foreign shareholder trust on firm market risk, augmenting our model for additional country-level control variables. The dependent variable in Columns 1, 3, 5 and 7 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, 6 and 8 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). ln(GEODIST) is the natural logarithm of the distance between the country of firm headquarters and the country of origin of the foreign shareholder. SHAREBOARDER is a binary indicator that equals 1 if the country of firm headquarters and the country of origin of foreign shareholder share boarders. SHIDV, SHPDI, SHUAI and SHMAS are Hofstede's (2001) cultural indexes capturing individualism, power distance, uncertainty avoidance and masculinity, respectively, at the country of origin of the foreign shareholder. The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix or in the Appendix A of the Manuscript.

Dependent Variables:	(1) TRISK	(2) IRISK	(3) TRISK	(4) IRISK	(5) TRISK	(6) IRISK	(7) TRISK	(8) IRISK
SHTRUST	-1.457**	-1.226**	-1.887***	-1.634***	-4.092***	-3.752***	-1.743***	-1.597**
	(-2.43)	(-2.13)	(-3.11)	(-2.84)	(-2.96)	(-2.84)	(-2.59)	(-2.44)
ln(GEODIST)	0.116***	0.106***						
	(8.83)	(8.37)						
SHAREBOARDER			0.025	0.019				
			(0.60)	(0.47)				
SHIDV					-0.008**	-0.007**	-0.003*	-0.003*
					(-2.30)	(-2.32)	(-1.77)	(-1.87)
SHPDI					-0.021**	-0.020**	-0.009**	-0.009*
					(-2.54)	(-2.46)	(-2.03)	(-1.95)
SHUAI							-0.004***	-0.004***
							(-5.18)	(-4.90)
SHMAS							-0.001	-0.001
							(-0.92)	(-0.90)
ROA	-0.100***	-0.094***	-0.107***	-0.101***	-0.096***	-0.090***	-0.096***	-0.090***
	(-4.68)	(-4.53)	(-5.01)	(-4.85)	(-4.37)	(-4.24)	(-4.50)	(-4.36)
ln(ASSETS)	-0.098***	-0.105***	-0.091***	-0.098***	-0.101***	-0.107***	-0.097***	-0.104***
	(-19.41)	(-21.42)	(-17.77)	(-20.00)	(-16.36)	(-18.18)	(-19.46)	(-21.41)
LEVERAGE	0.008	0.004	0.007	0.003	0.007	0.002	0.008	0.004
	(1.11)	(0.58)	(0.92)	(0.41)	(0.82)	(0.29)	(1.18)	(0.54)
MB	-0.003	-0.003	-0.002	-0.002	-0.002	-0.002	-0.003	-0.003
	(-1.34)	(-1.34)	(-1.10)	(-1.11)	(-1.16)	(-1.13)	(-1.57)	(-1.50)
ln(AGE)	-0.067***	-0.062***	-0.060***	-0.055***	-0.086***	-0.078***	-0.076***	-0.068***
	(-5.44)	(-5.17)	(-4.67)	(-4.46)	(-5.50)	(-5.19)	(-6.08)	(-5.63)
BIG4	-0.294***	-0.304***	-0.311***	-0.320***	-0.332***	-0.339***	-0.326***	-0.333***
	(-12.86)	(-13.81)	(-12.76)	(-13.69)	(-11.39)	(-12.14)	(-13.61)	(-14.32)
GDPGR	0.003	0.003	0.008	0.006	0.002	0.001	0.001	0.001
	(0.79)	(0.61)	(1.62)	(1.41)	(0.35)	(0.21)	(0.30)	(0.15)

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Table IA 9 (continued)

Dependent Variables:	(1) TRISK	(2) IRISK	(3) TRISK	(4) IRISK	(5) TRISK	(6) IRISK	(7) TRISK	(8) IRISK
INVPROT	0.123**	0.115**	0.191***	0.178***	0.195**	0.186**	0.054	0.058
	(2.38)	(2.37)	(3.37)	(3.34)	(2.40)	(2.40)	(0.98)	(1.08)
(intercept)	2.514***	2.594***	3.305***	3.323***	5.803***	5.659***	4.639***	4.592***
	(10.90)	(11.77)	(12.67)	(13.36)	(5.50)	(5.62)	(7.21)	(7.36)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	27.014***	21.174***	42.901***	35.226***	52.451***	47.433***	35.913***	32.923***
Mean VIF	1.305	1.317	1.305	1.317	1.839	1.851	1.811	1.821
Observations	12,496	12,496	12,496	12,496	11,907	11,907	11,907	11,907
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SHETHFR	-0.099***	-0.099***	-0.100***	-0.100***	-0.060***	-0.060***	-0.107***	-0.107***
	(-8.12)	(-8.12)	(-8.00)	(-8.00)	(-5.21)	(-5.21)	(-8.91)	(-8.91)
F-Statistic	66.00	66.00	64.08	64.08	27.17	27.17	79.32	79.32
Partial R^2	0.03	0.03	0.0286	0.0286	0.0129	0.0129	0.0429	0.0429
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IA 10 Robustness of main results, after controlling for additional country-level characteristics at the country of corporate headquarters

This table presents the 2SLS analysis regarding the effect of foreign shareholder trust on firm market risk, augmenting our model for additional country-level control variables. The dependent variable in Columns 1, 3, 5, 7, 9, 11 and 14 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, 6, 8, 10, 12 and 14 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). IDV, PDI, UAI and MAS are four Hofstede's (2001) culture indexes capturing individualism, power distance, uncertainty avoidance, and masculinity, respectively. MCAPCNT is total market capitalization divided by GDP. COMLAW is a binary indicator that equals 1 for common law country. GINI index measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. SPRT, FITCHRT, and MOODYSRT represent the credit rating level of sovereign debt assigned by Standard and Poor's, Fitch, and Moody's, respectively. The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix or in the Appendix A of the Manuscript.

Dependent Variables:	(1) TRISK	(2) IRISK	(3) TRISK	(4) IRISK	(5) TRISK	(6) IRISK	(7) TRISK	(8) IRISK	(9) TRISK	(10) IRISK	(11) TRISK	(12) IRISK	(13) TRISK	(14) IRISK
SHTRUST	-1.955***	-1.681***	-1.841***	-1.548**	-1.921***	-1.647***	-2.254***	-1.913**	-1.932***	-1.673***	-2.357***	-2.063***	-1.975***	-1.700***
	(-3.12)	(-2.81)	(-2.83)	(-2.50)	(-3.00)	(-2.70)	(-2.61)	(-2.34)	(-2.97)	(-2.69)	(-3.44)	(-3.16)	(-3.04)	(-2.74)
IDV	-0.003***	-0.004***												
	(-3.11)	(-4.14)												
PDI	-0.004***	-0.004***												
	(-3.46)	(-3.50)												
UAI	-0.001	-0.001												
	(-1.28)	(-0.70)												
MAS	0.005***	0.004***												
	(6.40)	(6.11)												
COMLAW			-0.093***	-0.104***										
			(-2.58)	(-3.03)										
MCAP_CNT					-0.001**	-0.001**								
					(-2.52)	(-2.53)								
GINI							0.011***	0.011***						
							(4.10)	(4.70)						
SPRT									0.003***	0.002*				
									(2.66)	(1.82)				
FITCHRT											0.004***	0.003***		
											(4.01)	(3.24)		
MOODYSRT													0.005***	0.004***
													(4.91)	(4.18)
ROA	-0.095***	-0.087***	-0.105***	-0.099***	-0.108***	-0.101***	-0.097***	-0.091***	-0.108***	-0.101***	-0.104***	-0.097***	-0.107***	-0.101***
	(-4.48)	(-4.24)	(-4.93)	(-4.75)	(-5.03)	(-4.86)	(-4.46)	(-4.31)	(-5.06)	(-4.88)	(-4.84)	(-4.67)	(-5.04)	(-4.87)
ln(ASSETS)	-0.105***	-0.114***	-0.094***	-0.101***	-0.092***	-0.099***	-0.091***	-0.097***	-0.090***	-0.097***	-0.094***	-0.101***	-0.089***	-0.097***
	(-17.16)	(-19.55)	(-17.86)	(-20.17)	(-18.37)	(-20.64)	(-17.28)	(-19.49)	(-18.04)	(-20.40)	(-18.08)	(-20.37)	(-18.12)	(-20.48)
LEVERAGE	0.007	0.004	0.007	0.003	0.006	0.002	0.006	0.002	0.005	0.002	0.002	-0.002	0.004	0.001
	(0.93)	(0.61)	(0.99)	(0.50)	(0.85)	(0.34)	(0.79)	(0.31)	(0.72)	(0.27)	(0.21)	(-0.22)	(0.57)	(0.11)

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Table IA 10 (continued)

Dependent Variables:	(1) TRISK	(2) IRISK	(3) TRISK	(4) IRISK	(5) TRISK	(6) IRISK	(7) TRISK	(8) IRISK	(9) TRISK	(10) IRISK	(11) TRISK	(12) IRISK	(13) TRISK	(14) IRISK
MB	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.003	-0.003	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
	(-1.07)	(-1.06)	(-0.99)	(-0.99)	(-1.04)	(-1.05)	(-1.23)	(-1.27)	(-0.99)	(-1.03)	(-0.84)	(-0.89)	(-0.91)	(-0.95)
ln(AGE)	-0.064***	-0.060***	-0.061***	-0.056***	-0.060***	-0.055***	-0.066***	-0.060***	-0.058***	-0.054***	-0.052***	-0.048***	-0.056***	-0.052***
	(-4.91)	(-4.77)	(-4.70)	(-4.52)	(-4.64)	(-4.44)	(-4.63)	(-4.42)	(-4.46)	(-4.31)	(-3.83)	(-3.72)	(-4.27)	(-4.12)
BIG4	-0.296***	-0.306***	-0.319***	-0.329***	-0.309***	-0.318***	-0.326***	-0.334***	-0.321***	-0.326***	-0.316***	-0.322***	-0.326***	-0.332***
	(-11.93)	(-12.85)	(-13.04)	(-14.07)	(-12.69)	(-13.64)	(-12.65)	(-13.61)	(-12.85)	(-13.62)	(-12.21)	(-13.05)	(-13.05)	(-13.87)
GDPGR	0.007	0.004	0.010**	0.009*	0.009*	0.008*	0.005	0.003	0.011**	0.009*	0.013**	0.010**	0.016***	0.013***
	(1.27)	(0.89)	(1.99)	(1.90)	(1.86)	(1.67)	(0.90)	(0.57)	(2.18)	(1.77)	(2.49)	(2.07)	(2.99)	(2.59)
INVPROT	0.044	0.072	0.277***	0.272***	0.279***	0.260***	0.309***	0.285***	0.100	0.118*	0.032	0.050	0.032	0.048
	(0.75)	(1.29)	(4.54)	(4.82)	(4.02)	(3.98)	(3.68)	(3.61)	(1.48)	(1.85)	(0.46)	(0.78)	(0.48)	(0.77)
(intercept)	3.916***	3.941***	3.260***	3.257***	3.295***	3.305***	2.899***	2.864***	3.204***	3.260***	3.325***	3.373***	3.096***	3.149***
	(12.43)	(13.09)	(12.26)	(12.88)	(12.61)	(13.30)	(9.47)	(9.90)	(12.00)	(12.80)	(12.02)	(12.84)	(11.82)	(12.62)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	43.21***	35.257***	37.596***	29.461***	42.017***	33.874***	30.751***	24.083***	41.593***	34.079***	55.481***	46.004***	43.179***	34.982***
Mean VIF	1.825	1.837	1.460	1.473	1.406	1.418	1.329	1.342	1.550	1.563	1.547	1.560	1.523	1.536
Observations	12,246	12,246	12,496	12,496	12,496	12,496	11,610	11,610	12,496	12,496	12,374	12,374	12,496	12,496
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
SHETHFR	-0.099***	-0.099***	-0.093***	-0.093***	-0.095***	-0.095***	-0.075***	-0.075***	-0.094***	-0.094***	-0.093***	-0.093***	-0.094***	-0.094***
	(-8.10)	(-8.10)	(-7.60)	(-7.60)	(-7.85)	(-7.85)	(-6.23)	(-6.23)	(-7.72)	(-7.72)	(-7.62)	(-7.62)	(-7.73)	(-7.73)
F-Statistic	65.65	65.65	57.75	57.75	61.59	61.59	38.77	38.77	59.55	59.55	58.05	58.05	59.81	59.81
Partial R^2	0.0287	0.0287	0.0259	0.0259	0.0275	0.0275	0.0194	0.0194	0.0266	0.0266	0.0256	0.0256	0.0266	0.0266
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IA 11 Foreign shareholder trust and firm risk, after excluding countries with high representation

This table presents the 2SLS analysis of the effect of foreign shareholder trust on firm market risk after excluding firms from: a) US (Columns 1 and 2), b) Japan (Columns 3 and 4), c) India (Columns 5 and 6), d) Canada (Columns 7 and 8), e) Australia (Columns 9 and 10), and f) all five aforementioned countries (Columns 11 and 12). The dependent variable in Columns 1, 3, 5, 7, 9, and 11 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, 6, 8, 10, and 12 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix A of the Manuscript.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Countries excluded:	USA		Japan		India		Canada		Australia		All five countries	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
SHTRUST	-3.000***	-2.571***	-1.601***	-1.368**	-1.740***	-1.457**	-1.364**	-1.132**	-2.364***	-2.010***	-1.583***	-1.226**
	(-4.33)	(-4.01)	(-2.63)	(-2.34)	(-2.63)	(-2.31)	(-2.50)	(-2.17)	(-2.92)	(-2.62)	(-3.09)	(-2.55)
ROA	-0.123***	-0.115***	-0.094***	-0.088***	-0.103***	-0.097***	-0.127***	-0.119***	-0.113***	-0.106***	-0.150***	-0.141***
	(-3.82)	(-3.70)	(-4.38)	(-4.23)	(-4.84)	(-4.68)	(-5.33)	(-5.13)	(-5.10)	(-4.98)	(-3.04)	(-2.94)
ln(ASSETS)	-0.072***	-0.080***	-0.104***	-0.110***	-0.091***	-0.097***	-0.084***	-0.091***	-0.090***	-0.096***	-0.063***	-0.069***
	(-14.34)	(-16.92)	(-17.41)	(-19.09)	(-18.04)	(-20.21)	(-16.51)	(-18.71)	(-16.48)	(-18.61)	(-9.93)	(-11.43)
LEVERAGE	0.006	0.003	0.004	0.001	0.006	0.002	0.010	0.006	0.007	0.003	0.008	0.006
	(0.76)	(0.34)	(0.55)	(0.09)	(0.70)	(0.32)	(1.40)	(0.89)	(0.89)	(0.39)	(0.82)	(0.63)
MB	-0.001	-0.001	-0.002	-0.002	-0.002	-0.002	-0.003	-0.003	-0.001	-0.001	0.001	0.001
	(-0.33)	(-0.34)	(-1.03)	(-1.04)	(-0.81)	(-0.85)	(-1.46)	(-1.51)	(-0.58)	(-0.60)	(0.42)	(0.29)
ln(AGE)	-0.038***	-0.035***	-0.071***	-0.066***	-0.055***	-0.049***	-0.071***	-0.065***	-0.058***	-0.053***	-0.048***	-0.044***
	(-2.73)	(-2.74)	(-5.26)	(-5.11)	(-4.20)	(-3.91)	(-5.16)	(-4.94)	(-4.01)	(-3.89)	(-3.11)	(-2.99)
BIG4	-0.228***	-0.240***	-0.314***	-0.323***	-0.341***	-0.355***	-0.296***	-0.304***	-0.321***	-0.329***	-0.225***	-0.245***
	(-9.08)	(-10.21)	(-11.80)	(-12.62)	(-12.44)	(-13.46)	(-12.36)	(-13.23)	(-11.95)	(-12.93)	(-7.19)	(-8.21)
GDPGR	0.026***	0.024***	0.014***	0.013**	0.012**	0.013**	0.008*	0.007	0.009*	0.007	0.046***	0.045***
	(5.27)	(5.09)	(2.69)	(2.55)	(2.13)	(2.38)	(1.80)	(1.62)	(1.80)	(1.54)	(7.44)	(7.60)
INVPROT	0.184***	0.171***	0.137**	0.129**	0.165***	0.152***	0.154***	0.142***	0.261***	0.237***	-0.019	-0.019
	(2.93)	(2.97)	(2.46)	(2.46)	(2.81)	(2.76)	(2.99)	(2.94)	(3.62)	(3.54)	(-0.35)	(-0.39)
(intercept)	2.973***	2.972***	3.498***	3.495***	3.286***	3.273***	3.125***	3.148***	3.301***	3.296***	2.549***	2.516***
	(12.83)	(13.86)	(13.34)	(13.94)	(12.26)	(12.83)	(12.31)	(12.95)	(10.49)	(11.10)	(11.80)	(12.64)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	82.851***	65.021***	32.044***	25.879***	32.871***	25.639***	30.292***	23.388***	43.155***	34.223***	30.316***	19.814***
Mean VIF	1.256	1.269	1.323	1.335	1.313	1.326	1.288	1.301	1.309	1.322	1.193	1.202
Observations	11,172	11,172	11,062	11,062	11,336	11,336	11,408	11,408	11,311	11,311	6,305	6,305
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
SHETHFR	-0.095***	-0.095***	-0.105***	-0.105***	-0.098***	-0.098***	-0.110***	-0.110***	-0.082***	-0.082***	-0.137***	-0.137***
	(-6.92)	(-6.92)	(-8.25)	(-8.25)	(-7.54)	(-7.54)	(-8.56)	(-8.56)	(-6.65)	(-6.65)	(-7.33)	(-7.33)
F-Statistic	47.86	47.86	68.06	68.06	56.91	56.91	73.32	73.32	44.25	44.25	53.80	53.80
Partial R^2	0.0265	0.0265	0.0316	0.0316	0.0279	0.0279	0.0349	0.0349	0.0213	0.0213	0.0462	0.0462
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IA 12 Variations in investor protection, foreign shareholder trust and firm risk, using alternative definitions of investor protection

This table presents the 2SLS analysis of the effect of foreign shareholder trust on firm market risk, after separating the sample into countries with low (high) investor protection in Columns 1 and 2 (3 and 4) when using the sample median of RULAW; and in low (high) investor protection in Columns 5 and 6 (7 and 8) when using the sample median of CORRUP. The dependent variable in Columns 1, 3, 5, and 7 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, 6, and 8 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix or in the Appendix A of the Manuscript.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Low Investor Protection (RULAW)		High Investor Protection (RULAW)		Low Investor Protection (CORRUP)		High Investor Protection (CORRUP)	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
SHTRUST	-5.712**	-5.245**	-0.782	-0.712	-3.909***	-3.502***	-1.259*	-1.220*
	(-2.55)	(-2.50)	(-1.41)	(-1.32)	(-2.88)	(-2.77)	(-1.91)	(-1.91)
ROA	-0.154***	-0.147***	-0.073***	-0.066***	-0.139***	-0.130***	-0.074***	-0.068***
	(-3.84)	(-3.77)	(-3.05)	(-2.85)	(-3.11)	(-2.99)	(-3.21)	(-3.01)
ln(ASSETS)	-0.076***	-0.082***	-0.123***	-0.131***	-0.066***	-0.071***	-0.125***	-0.134***
	(-7.39)	(-8.40)	(-18.66)	(-20.58)	(-7.93)	(-9.07)	(-18.30)	(-20.09)
LEVERAGE	0.011	0.006	-0.002	-0.003	0.007	0.002	0.006	0.004
	(0.69)	(0.39)	(-0.16)	(-0.32)	(0.52)	(0.15)	(0.60)	(0.39)
MB	0.000	-0.000	-0.002	-0.002	-0.003	-0.003	-0.001	-0.001
	(0.05)	(-0.06)	(-0.74)	(-0.71)	(-0.93)	(-1.07)	(-0.41)	(-0.40)
ln(AGE)	-0.012	-0.012	-0.057***	-0.052***	-0.022	-0.023	-0.059***	-0.053***
	(-0.23)	(-0.25)	(-4.33)	(-4.06)	(-0.65)	(-0.71)	(-4.25)	(-3.94)
BIG4	-0.136***	-0.146***	-0.354***	-0.361***	-0.149***	-0.155***	-0.344***	-0.353***
	(-2.93)	(-3.38)	(-9.55)	(-9.98)	(-4.46)	(-4.98)	(-9.09)	(-9.52)
GDPGR	0.040***	0.035***	-0.016*	-0.012	0.047***	0.042***	-0.022**	-0.018**
	(3.34)	(3.10)	(-1.94)	(-1.43)	(5.02)	(4.75)	(-2.47)	(-2.13)
(intercept)	4.022***	3.976***	3.902***	3.928***	3.288***	3.246***	4.116***	4.165***
	(6.11)	(6.45)	(12.50)	(12.91)	(7.61)	(8.11)	(11.68)	(12.03)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	51.271***	46.377***	11.475***	10.712***	36.676***	31.606***	19.588***	19.704***
Mean VIF	1.260	1.270	1.358	1.375	1.230	1.240	1.384	1.401
Observations	6,292	6,292	6,204	6,204	5,991	5,991	6,505	6,505
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SHETHFR	-0.052***	-0.052***	-0.145***	-0.145***	-0.066***	-0.066***	-0.127***	-0.127***
	(-3.16)	(-3.16)	(-8.26)	(-8.26)	(-4.04)	(-4.04)	(-7.49)	(-7.49)
F-Statistic	19.98	19.98	68.28	68.28	16.36	16.36	56.06	56.06
Partial R^2	0.0083	0.0083	0.0594	0.0594	0.0138	0.0138	0.0451	0.0451
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IA 13 Variations in institutional context strength, foreign shareholder trust and firm risk, using alternative definitions of institutional context strength

This table presents the 2SLS analysis of the effect of foreign shareholder trust on firm market risk, after separating the sample into countries with weak (strong) institutional contexts in Columns 1 and 2 (3 and 4) when using the sample median of VOICACC; and in weak (strong) institutional contexts in Columns 5 and 6 (7 and 8) when using the sample median of GOVEFF. The dependent variable in Columns 1, 3, 5, and 7 is the standard deviation of each firm's weekly stock returns in each year, multiplied by the square root of 250 (TRISK). The dependent variable in Columns 2, 4, 6, and 8 is the standard deviation of the residuals from the market model regression augmented with Fama-French return factors, multiplied by the square root of 250 (IRISK). The z-statistics in parentheses are based on heteroskedasticity corrected robust standard errors, clustered on firms. The continuous variables are winsorized at the 1st and 99th percentiles The statistical significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***. All variables are defined in the Appendix or in the Appendix A of the Manuscript.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Weak Institutional Context (VOICACC)		Strong Institutional Context (VOICACC)		Weak Institutional Context (GOVEFF)		Strong Institutional Context (GOVEFF)	
Dependent Variables:	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK	TRISK	IRISK
SHTRUST	-3.042***	-2.788***	-1.069	-0.907	-4.890**	-4.363**	-0.857	-0.805
	(-3.04)	(-2.94)	(-1.56)	(-1.37)	(-2.52)	(-2.44)	(-1.54)	(-1.48)
ROA	-0.117***	-0.111***	-0.084***	-0.076***	-0.144***	-0.135***	-0.070***	-0.064***
	(-3.49)	(-3.39)	(-3.32)	(-3.14)	(-3.42)	(-3.31)	(-2.97)	(-2.80)
ln(ASSETS)	-0.083***	-0.089***	-0.112***	-0.120***	-0.069***	-0.075***	-0.124***	-0.131***
	(-10.63)	(-11.97)	(-16.97)	(-18.91)	(-7.81)	(-9.00)	(-18.64)	(-20.43)
LEVERAGE	0.019*	0.013	0.000	-0.001	0.007	0.002	0.002	0.001
	(1.67)	(1.24)	(0.02)	(-0.12)	(0.50)	(0.19)	(0.23)	(0.06)
MB	-0.003	-0.003	-0.001	-0.001	-0.002	-0.002	-0.001	-0.001
	(-1.03)	(-1.13)	(-0.36)	(-0.36)	(-0.54)	(-0.70)	(-0.36)	(-0.35)
ln(AGE)	-0.040	-0.037	-0.062***	-0.056***	-0.008	-0.009	-0.066***	-0.061***
	(-1.48)	(-1.45)	(-4.62)	(-4.31)	(-0.21)	(-0.26)	(-4.82)	(-4.50)
BIG4	-0.230***	-0.234***	-0.323***	-0.333***	-0.148***	-0.156***	-0.348***	-0.359***
	(-7.38)	(-7.89)	(-8.87)	(-9.41)	(-3.75)	(-4.30)	(-9.65)	(-10.16)
GDPGR	0.029***	0.024***	-0.023**	-0.014	0.054***	0.048***	-0.019**	-0.015*
	(4.17)	(3.70)	(-2.55)	(-1.64)	(4.48)	(4.31)	(-2.24)	(-1.85)
INVPROT	0.198**	0.186**	0.259***	0.265***	0.472**	0.428**	-0.077	-0.056
	(2.18)	(2.18)	(3.30)	(3.53)	(2.19)	(2.16)	(-1.04)	(-0.79)
(intercept)	3.314***	3.335***	3.372***	3.349***	2.949***	2.939***	4.073***	4.069***
	(10.00)	(10.65)	(10.36)	(10.65)	(7.68)	(8.39)	(11.73)	(11.96)
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hausman test	37.251***	33.298***	11.518***	9.719***	38.779***	33.157***	13.612***	13.125***
Mean VIF	1.271	1.281	1.344	1.358	1.230	1.239	1.390	1.405
Observations	6,114	6,114	6,382	6,382	6,035	6,035	6,461	6,461
First stage	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SHETHFR	-0.084***	-0.084***	-0.115***	-0.115***	-0.053***	-0.053***	-0.143***	-0.143***
	(-5.15)	(-5.15)	(-6.91)	(-6.91)	(-3.20)	(-3.20)	(-8.72)	(-8.72)
F-Statistic	26.55	26.55	47.75	47.75	10.25	10.25	76.10	76.10
Partial R^2	0.0228	0.0228	0.0369	0.0369	0.0091	0.0091	0.0589	0.0589
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes