Article:
Lewis, Y and Bozos, K orcid.org/0000-0003-2914-6495 (2019) Mitigating post-acquisition risk: the interplay of cross-border uncertainties. Journal of World Business, 54 (5). 100996. ISSN 1090-9516

https://doi.org/10.1016/j.jwb.2019.100996

MITIGATING POST-ACQUISITION RISK: THE INTERPLAY OF CROSS-BORDER UNCERTAINTIES

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ABSTRACT

Do international acquisitions increase acquirers' risk? If so, can cross-border uncertainties interact and offset such risk? The perspective of integrated risk management suggests international acquirers could mitigate their overall risk through the interplay of various levels of uncertainties. Using asset pricing to measure shifts in risk and a large sample of international acquisitions by US firms during 2000-2014, we find that acquirers can reduce their risk by trading internal and deal-level risk factors (information asymmetry and moral hazard) off against external and country-level risk factors ("liability of foreignness" and "double-layered acculturation").

Keywords*:* risk; mergers and acquisitions; international; cultural distance; institutional distance

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INTRODUCTION

Despite the substantial uncertainty surrounding the global marketplace, the market of international mergers and acquisitions (M&As) has been particularly active. Due to the exciting and often contentious nature of M&A activities, scholars from various disciplines have studied the acquisition behaviour of multinational enterprises (MNEs) extensively. Even with the wealth of research, international M&As have been reported to present very high failure rates, often ranging between 45% and 67% (Mukherji, Dibrell, & Francis, 2013). While risk is a well-defined predictor of failure, most studies place a disproportionate focus on the return side of performance (Lee & Caves, 1998; Park & Russo, 1996). To better understand the high failure rate of M&As, the examination of M&A risk is essential. Thus, in this article, we investigate whether cross-border M&As involve increased risk for the acquirer and if so what international acquirers should do to offset the increased risk.

The theoretical foundation of our paper lies in Miller's (1992) perspective of integrated risk management, suggesting international acquirers should utilize simultaneous trade-offs among various levels of uncertainties for strategic international risk management. In other words, the various uncertainties encountered by an MNE can interplay and reduce the firm's overall risk. Building on Miller's (1992) work, a small number of scholars find that MNEs can actually utilize integrated risk management to reduce risk across varied contexts. Shrader, Oviatt, and McDougall (2000) show how new ventures can manage their risk by trading three factors off against each other: foreign location, entry mode, and the proportion of revenue exposed to certain locations. Das and Teng (1998) recommend understanding the behaviour of strategic alliances by integrating resource and risk dimensions. In supply chain risk management, it is crucial to acknowledge the interacting effects of supply risks, demand risks, and operational risks (Manuj & Mentzer, 2008). In line with this important body of literature, our study employs the integrated risk management perspective in the context of cross-border M&As.

Among the extant research on cross-border M&As, the studies of Chari and Chang (2009) and Reuer, Shenkar, and Ragozzino (2004) stand out for probing the risk dimension of M&As. Building on their significant developments, our study offers two extensions: First, while these studies focus on a single source of risk, we address risk more holistically. Specifically, Reuer et al. (2004) examine risk mitigation by performance-contingent payout (i.e., stock payment or earnouts). Since contingent payout is a payment method that depends on the success of the deal and the performance of the target, it addresses the information asymmetry problem and transfers the acquirer's downside risk to the target. Nonetheless, information asymmetry, leading to the risk of adverse selection, is only one source of risk in cross-border M&As. Chari and Chang (2009), on the other hand, explore the determinants of share of equity. While share of equity does have implications for resource commitment, risk, returns, and control, it is not an explicit measure of risk. Expanding on these two studies, we address the risk of cross-border M&As via a more direct and precise approach. Second, the above studies directly examine the determinants or risk factors, which shows that they assume the factors are competing rather than complementary in nature. In

contrast, we emphasize the complementary interplay effect among the sources of risk, and allow the risk factors to interact with each other.

International M&A research concludes that the key risk factors are information asymmetry, moral hazard, and country-level uncertainties such as the "liability of foreignness" and "double-layered acculturation" (Barkema, Bell, & Pennings, 1996; Eden & Miller, 2004). The "liability of foreignness" stresses the social cost of doing business abroad, which results from the unfamiliarity that foreign firms face (Eden & Miller, 2004). A foreign firm engaged in M&As also deals with the issue of double-layered acculturation, which refers to the cultural distances at both the country and corporate level (Barkema et al., 1996). To understand the behaviour of cross-border M&A risk and to assess the efficacy of mitigation channels, we exploit the complementary and competing effects of these risk factors through their indicators: industry relatedness, cultural distance, and institutional distance. Industry relatedness indicates the organizational similarity in terms of business traits and goals, which implies the degree of information asymmetry and moral hazard problems. Institutional distance is the key driver behind the "liability of foreignness" (Eden & Miller, 2004). Finally, cultural distance at the country level measures the outer layer of "double-layered acculturation".

Using a sample of 1,874 international acquisitions by US firms from 2000 to 2014, we find significant moderating effects among industry relatedness, cultural distance, and institutional distance on acquirers' post-acquisition risk. For instance, while industry relatedness on its own increases post-acquisition systematic risk, the presence of cultural distance can (at least partially) offset such risk effects. In other words, if a firm acquires a related target in a culturally distant country, post-takeover risk decreases. If, on the other hand, the target is in a culturally similar country, the acquirer experiences an even more pronounced increase in risk. Therefore, "double-layered acculturation" can act as a risk mitigation scenario for cross-border acquirers. Futhermore, the increased risk from industry relatedness can also be mitigated by institutional distance, especially when the related targets are from upstream institutions (i.e., countries with better institutional development than the US). Lastly, we find that acquirers' risk declines when the targets are from upstream countries with both culturally and institutionally distant environments. Our results therefore support our theoretical proposition: strategic international risk, examined in the context of cross-border M&As in our study, is subject to an array of simultaneous trade-offs among the risks of adverse selection, moral hazard, and target-country distance.

Our study provides three contributions. First, we bridge a gap in the international business (IB) literature on risk as the performance outcome; while the literature is rich with theory and empirical evidence on the outcomes of internationalization strategies, it is disproportionately focused on returns. However, returns are just one facet of performance, which cannot illustrate the full outcomes of internationalization. Along with the attainment of economic rents, managing risks is a primary objective of firms operating internationally (Ghoshal, 1987; Miller, 1992). By studying risk as the performance outcome, we open a debate to investigate, quantify, and mitigate strategic international risks. Second, we contribute to the theory of integrated risk management (Miller, 1992). The dominant theories explaining the cross-border M&A

phenomenon are transaction cost economics (TCE), ownership-location-internalization (OLI), and the resource-based view (RBV). While these theories build a strong foundation within this body of literature, Miller's framework provides a unique perspective on theorizing about cross-border M&A risk. Our study extends his integrated risk framework in the specific context of cross-border M&As. We posit that acquirers can leverage internal factors from deal-level characteristics to offset external risks coming from country-level factors. Third, we contribute to the cross-border M&A literature by providing a measure of risk. Despite the extensive research on cross-border M&As, we are not close to explaining the high failure rates as we tend to overlook risk (Haleblian, Devers, McNamara, Carpenter, & Davison, 2009). Scholars have recently focused on examining abnormal returns as the performance measure. Abnormal returns estimate the difference between actual and expected returns, which assumes risk to be time-invariant across pre- and post-announcement periods. Thus, they fail to account for possible shifts in the volatility – hence the risk – of stock returns. Instead, we measure the acquirers' post-acquisition shift in systematic risk from the difference between pre- and post-announcement periods, using the Carhart Four-Factor Model (Lubatkin & O'Neill, 1987).

The rest of the paper is organized as follows: in the next section, we discuss the theoretical framework and put forward testable hypotheses. Then, we present our empirical data and methodology. The fourth section illustrates the results and the fifth provides robustness checks for our study. The last section concludes.

THEORETICAL BACKGROUND

As one of the primary objectives of MNEs, risk management is a critical area in need of contemporary theorization and quantitative mitigation (Ghoshal, 1987; Lee & Caves, 1998). In the past, scholars and risk managers have treated risk purely in terms of one particular type of uncertainty, excluding other existing ones. With the development of globalization and technology, the risk manager is increasingly becoming involved in managing a broader spectrum of risks facing the firm (Colquitt, Hoyt, & Lee, 1999). In the context of IB, MNEs face various and numerous levels of uncertainties, ranging from the firm level to the general environmental level, which makes IB inherently risky. The complexity of uncertainties for MNEs drove the development of integrated risk management especially for IB (Miller, 1992, 1998). Specifically, Miller (1992) proposed a framework with multiple dimensions of risks for international businesses. These multiple dimensions of risks are suggested to be simultaneously determined, or interrelated, rather than operating independently of each other. Truly, MNEs' financial (or foreign exchange) risk is highly related to their strategic risk. The failure to hedge a firm's exposure to foreign exchange risk would risk the success or performance of a firm's strategies.

Miller's (1992) perspective of interdependencies between risk factors formulates his insight: managing those risks often involves trade-offs. A trade-off between exposures to various uncertainties means that a reduction of one uncertainty may result in increased exposure to another uncertainty (Miller,

1992). Thus, MNEs can manage multiple IB risks by trading one risk off against another to keep the overall risk lower than it would be without such trade-offs (Shrader et al., 2000). As mentioned before, IB scholars have theoretically developed and empirically tested the theory of integrated risk management in the context of new ventures, supply chain risk management, and strategic alliances. This paper further employs the theory in the context of international M&As, considering the various levels of risk factors acquirers face.

Information asymmetry between the acquirer and the target is the primary risk factor in M&As, existing when the bidder lacks precise or sufficient information about the target (Chari & Chang, 2009; Reuer et al., 2004). When asymmetrical information prevails between two companies, the acquirer faces the risk of adverse selection (i.e., overpayment) due to an inaccurate evaluation of the target's value or excessive transaction costs during the negotiation phase. As Mukherji et al. (2013) point out, information asymmetry is a major source of overbidding risk, particularly due to the misevaluation of intangible assets. In addition to adverse selection as the *ex-ante* valuation uncertainty (i.e., risk prior to deal completion), moral hazard problems (Alchian & Woodward, 1988; Holmstrom, 1982) are also likely to occur both before and after deal completion. On the one hand, to the extent that CEOs influence board decisions on compensation, as supported by the "managerial power" view, acquisitions can be used by CEOs as justification for additional compensation (Grinstein & Hribar, 2004). Since compensation contracts are often not designed perfectly, managers may also be allowed to extract rents that are linked to the completion or size of a deal, rather than its performance[3]. On the other hand, following deal completion, information asymmetry between the owner and the manager – as well as that between the managers of the bidder and the target – may continue to exist. The acquirer is therefore exposed to further uncertainty and moral hazard problems, factors often cited as potential causes of integration failure (Chi, 1994).

The risk of adverse selection and moral hazard problems are common factors in M&As, and are internal or endogenous uncertainties for acquirers. Following Gatignon and Anderson (1988), we consider risk factors that are limited to within organizations (i.e., the acquirer and the target) as internal uncertainty. These internal risk factors are exacerbated when it comes to cross-border M&As (Gatignon & Anderson, 1988). In an international context, internal risk factors (adverse selection and moral hazard problems) are amplified by external influences such as the "liability of foreignness" and "double-layered acculturation" (Aybar & Ficici, 2009; Barkema et al., 1996; Eden & Miller, 2004). Being exposed to "double-layered acculturation", acquirers not only encounter the target's different organizational culture but also often compete with its different national culture. These external risks result from differences in national culture, institutional environments, business practices, and customer behaviors, which heighten information asymmetry and complexity.

Studies in international economics and finance have approached the issue from the theoretical and empirical lens of "familiarity" or cultural affinity (Guiso, Sapienza, & Zingales, 2009). In general, investors appear reluctant to hold the securities of firms they are not familiar with, a principle which also explains

[3] Grinstein and Hribar (2004) report that, in 4 out of 10 deals in their sample, deal completion was cited as a criterion for the provision bonuses, averaging over $1.4 million on top of any other compensation.

"home bias" in investment portfolios, overseas listing decisions etc. As Chan, Covrig, and Ng (2005) also reveal, investors may even present foreign bias, by overweighting their portfolios towards certain foreign markets, depending on the level of economic development, market capitalization, transaction costs, or any factors reducing information asymmetry. The same norm has been found to apply in overseas-listing decisions, with companies showing preferences for foreign markets with geographical proximity or other familiar characteristics, explaining the propensity of US issuers to cross-list in Canada, the United Kingdom, and certain European countries. In the domain of cross-border M&As – where cross-cultural interactions between acquirers and targets are expected to be more intense – Siegel, Licht, and Schwartz (2011) document that the distance between origin and destination countries regarding critical informal institutions, such as cultural egalitarianism, not only explains the home bias in portfolio holdings and acquisition volume, but also the value destruction in cross-border M&As. Furthermore, Ahern, Daminelli, and Fracassi's (2015) recent work gives further empirical support to the view that distance in cultural values negatively influences merger activity and acquirer returns. The above theoretical and empirical lens from international finance corroborates the IB paradigm that MNEs in general, and international acquirers in particular, face unfavorable odds when engaging in cross-border strategic investments.

However, in cross-border acquisitions, internal risk factors (adverse selection and moral hazard problems) and external uncertainties ("liability of foreignness" and "double-layered acculturation") are complementary and overlapping (Chari & Chang, 2009; Reuer & Koza, 2000). Moreover, these internal (firm-level) and external (country-level) uncertainties are interrelated and can thus be traded off against alternative firm strategies (Miller, 1992). In other words, according to Miller's (1992) integrated risk management perspective, when a firm's exposure to one level of uncertainty increases, its exposure to another level of uncertainty decreases, and the firm can manage its risk by adjusting its strategy through simultaneous trade-offs among the levels of uncertainties. To be more specific to our context, international acquirers can mitigate their risk by simultaneously trading the external uncertainties ("liability of foreignness" and "double-layered acculturation") off against internal uncertainties (adverse selection and moral hazard problems). From earlier studies, acquirers could passively mitigate their risk by controlling the equity sought or the payment method. In our study, we integrate the internal with the external risk factors, allowing the acquirers to mitigate their risk in an active fashion. We utilize such indicators of uncertainties as industry relatedness, institutional distance, and cultural distance.

HYPOTHESIS DEVELOPMENT

Industry Relatedness

Synergy theory argues that related acquisitions – where acquirers and targets share strategic interdependence, redeploy resources, and combine at an operating level – will produce benefits (Capron, Dussauge, & Mitchell, 1998). In related acquisitions, it is easier for the acquirer to evaluate the target's business and value because of the similarities, reducing the degree of information asymmetry and subsequent moral hazard problems. Thus, the acquirer is – at least in theory – subject to a lower risk of

adverse selection (Chari & Chang, 2009; Reuer et al., 2004). However, many acquisitions that are potentially synergistic fail to create value or even ultimately lead to divestitures (Bergh, 1997; Davidson III, Rosenstein, & Sundaram, 2002). In order to benefit from operational synergies, related acquisitions require the bidders to invest heavily in implementation (or integration) after the deal. These implementation costs are higher in a cross-border context, due to the distance between the acquirer and the target in terms of culture, geography, and institutions (Chakrabarti & Mitchell, 2016). In the meantime, the high implementation costs have a larger impact in an international context for related acquisitions than unrelated ones (Chakrabarti & Mitchell, 2016).

Furthermore, the acquisition of related targets tends to drive acquirers' confidence and hubris up because the acquirer feels they know enough about the target's business (Lubatkin & O'Neill, 1987). Assuming there is sufficient and symmetric information about the target's business, an acquirer is more likely to underestimate the implementation costs and consolidation efforts. Integration costs often exceed the expected value of the synergies, thus contributing to value destruction and the risk of integration failure. By underestimating costs and under-resourcing consolidation efforts, acquirers are prone to neglect important administrative functions (Kitching, 1967). Therefore, the more related a target is, the higher the risk of administrative business and integration failure is.

Singh and Montgomery (1987) argue that related acquisitions provide the acquirer with greater economies of scale and scope, while unrelated ones are likely to achieve financial and administrative synergies. Thus, unrelated cross-border acquisitions have more potential to lower the acquirer's cost of capital (Chatterjee, 1986). As a lower cost of capital reduces the required rate of return on investment, it allows for further investment opportunities, thus bringing higher value and lower systematic risk for the firm, all other things being equal (Lubatkin & O'Neill, 1987). In addition, unrelated overseas acquisitions are known to be more "satisfactory vehicles" for risk reduction than domestic ones, because of the diversification into international markets (Hisey & Caves, 1985; Seth, Song, & Pettit, 2002). We therefore expect that related cross-border M&As will be accompanied by higher risk than unrelated ones *ceteris paribus*.

H1: Industry relatedness between the acquirer and the target increases the acquirer's risk in cross-border M&As.

Cultural Distance

The research on the impact of cultural distance on M&A outcomes has been inconclusive and contradictory (Björkman, Stahl, & Vaara, 2007; Chakrabarti, Gupta-Mukherjee, & Jayaraman, 2009). On the one hand, cultural distance at the country level may provide strengths and advantages to the acquirer, assuming they have pre-deal awareness of the cultural difference and are well-prepared for the challenges it will pose (Chakrabarti et al., 2009). On the other hand, cultural distance is found to impede the integration and capability transfer because of so-called "double-layered acculturation" (Barkema et al., 1996), with one layer arising from difficulties at the organizational culture level and the other at the national culture level. Acquirer and target have to combine both levels of cultural differences. In addition, as Siegel et al. (2011) suggest, as

cultural distance increases, target-firm stakeholders may become more difficult to deal with, subsidiary management becomes harder to monitor, and negotiations become more complex and costlier, ultimately giving rise to a risk of the deal being abandoned altogether. We therefore argue that "double-layered acculturation" can actually increase acquirer risk in cross-border M&As. The outer layer of country-level differences amplifies the risk generated by the inner layer of organization-level differences. Thus, we expect that cultural distance between the acquirer and the target at the country level will increase the acquirer's risk in international M&As.

H2: Cultural distance between the acquirer's country and the target's country increases the acquirer's risk in cross-border M&As.

Institutional Distance

Country governance is defined as *the tradition and institutions by which authority is exercised* (Kaufmann, Kraay, & Mastruzzi, 2011). The difference in country governance (i.e., institutional distance) between the acquirer and the target is the key driver behind the "liability of foreignness" (Eden & Miller, 2004). Thus, institutional distance is a critical factor for cross-border M&A performance. Scholars have examined its influences on the acquirer's abnormal returns (Chari, Ouimet, & Tesar, 2009; Ellis, Moeller, Schlingemann, & Stulz, 2017; Gubbi, Aulakh, Ray, Sarkar, & Chittoor, 2010), deal completion or abandonment (Dikova, Sahib, & Van Witteloostuijn, 2010; Zhou, Xie, & Wang, 2016), and target premiums (Bris & Cabolis, 2008; Weitzel & Berns, 2006). Kwok and Reeb (2000), propose an upstream-downstream hypothesis, which states that MNEs going upstream (i.e., internationalizing into a more institutionally developed economy) experience a risk reduction, but those going downstream (i.e., internationalizing into a less institutionally developed economy) experience a risk increase. Upstream institutions provide more economic and political stability, which decreases the acquirer's currency and governance risk. Also, in an upstream environment, assets and investments are easier for the acquirer to expropriate and exploit, which decreases its financial risk.

More recent work supports country governance being portable in M&As (Bris, Brisley, & Cabolis, 2008; Chari et al., 2009; Ellis, Moeller, Schlingemann, & Stulz, 2017), such that MNEs acquiring downstream targets can transfer their relatively better governance, thus facilitating resource redeployment, exploration, and diversification of their strategic assets. By sharing and transferring, the acquirer can improve the target's value by controlling its corporate governance practices in its accounting, legal regulations, operational process etc. Therefore, acquiring downstream targets may ultimately decrease acquirers' risk.

Drawing from Kwok and Reeb (2000) above, but also acknowledging the portability of country governance, we therefore posit that:

H3: Institutional distance between the acquirer's country and a downstream target's country decreases the acquirer's risk in cross-border M&As.

H4: Institutional distance between the acquirer's country and an upstream target's country decreases the acquirer's risk in cross-border M&As.

Industry Relatedness and Cultural Distance

With increasing M&A activities, international acquirers have prior awareness of the cultural distance of a target's nation and its potential influences on negotiation and integration (Chakrabarti et al., 2009). The awareness of information asymmetry due to cultural distance outstrips neglect or overconfidence coming from industry relatedness. Acquirers will likely engage more thoroughly with *ex-ante* M&A procedures such as screening, selection, evaluation, due diligence, and contracting. In other words, when acquiring a culturally distant target, the bidder will assume similarly high levels of information asymmetry for related as for unrelated targets. In the same vein, during the *ex-post* integration phase, acquirers – conscious of the cultural differences – will be better prepared for potential obstacles. This preparation will make the acquirers less likely to underestimate the implementation costs and potential hurdles in integrations with related targets when the firms are culturally disparate (Chakrabarti et al., 2009). Therefore, while acquirers may underestimate integration and consolidation costs in related acquisitions (Lubatkin & O'Neill, 1987), the presence of high cultural distance will incite more rigorous *ex-ante* and *ex-post* M&A procedures, which will offset any overlooked aspects due to industry relatedness. Therefore, we propose that cultural distance will facilitate the operational synergy stemming from industry relatedness, and thus the interaction between cultural distance and industry relatedness will reduce the acquirer's risk in cross-border M&As. In other words:

H5: The higher the cultural distance between the acquirer's and the target's nations, the lower is the effect of industry relatedness on the acquirer's shift in risk.

Industry Relatedness and Institutional Distance

In the context of cross-border M&As, as we argued above, the risks of moral hazard and information asymmetry are heightened, especially when the acquisition target is in a related industry. However, high institutional distance may allow the acquirer to experience a risk reduction either by allowing more autonomy to the target, or simply by taking advantage of the reduced sensitivity to market shocks.

The more related a target is to the bidder, the more likely corporate managers are to reinforce consolidation efforts, rather than execute autonomous management within the subsidiary (Lubatkin & O'Neill, 1987). This can increase integration efforts and lead to losses associated with deal implementation risk (i.e. employee turnover, litigation, etc.). In fact, Salomon and Wu (2012, p. 344) suggest that "Foreign firms from more institutionally distant home countries are more likely to adopt local isomorphism strategies to acquire legitimacy and mitigate the liability of foreignness." As such – particularly for related deals – in cases of high institutional distance acquirers are more likely to allow organizational autonomy to the target in order to better adopt the host country's institutions and norms. This will in turn not only better help

acquirers to reduce risks associated with legitimacy costs, but also ultimately facilitate integration and mitigate the implementation uncertainties described above. In other words, while for domestic deals quick and effective integration can shield acquirers from risks associated with diseconomies of scale, in the presence of institutional distance bidders will not rush to impose an integration mandate unless it is reasonably safe and prudent to do so.

In addition, despite the stylized fact in international finance that countries exhibit high stock market integration or interdependence (Forbes & Rigobon, 2002; Lee, 2006), institutional distance has been found to reduce market co-movement. Specifically, across global markets, the development of similar principal institutions (e.g., political and legal systems) increases the co-movement of stock returns, while institutional distance decreases it (Tavares, 2009). Therefore, it can be argued that institutional distance, by reducing market interdependence between the acquirer and target countries, can also act as a "cushion" to industry-specific shocks (i.e. from regulatory shifts, supply and labor shortages, etc), thereby mitigating the acquirer's sensitivity to home-host market uncertainties.

Therefore, institutional distance can act as a risk mitigation device for related acquisitions from both downstream and upstream countries; however, since the magnitude of the effects for the downstream and upstream countries may differ, we make two distinct hypotheses:

H6: The higher the institutional distance between the acquirer's country and a downstream target's country, the lower is the effect of industry relatedness on the acquirer's shift in risk.

H7: The higher the institutional distance between the acquirer's country and an upstream target's country, the lower is the effect of industry relatedness on the acquirer's shift in risk.

Cultural Distance and Institutional Distance

Culture is embedded in organizational structures and management styles (Schneider, 1990). Thus, with awareness of potential integration problems, the acquirer is expected to possess a diverse set of routines and repertoires as a result of acquiring culturally distant targets (Morosini, Shane, & Singh, 1998). Such diversity increases the acquirer's innovation and thus competitiveness in the long run. Nevertheless, since cultural values guide managers' decision-making towards risk and return (Li, Griffin, Yue, & Zhao, 2013; March & Shapira, 1987), diversity in managerial risk-taking and opportunity recognition might also be affected. What may be perceived as risk by managers in the acquirer's country might be treated as opportunity in the target's.

With culturally different targets, acquirers are hence able to diversify their portfolio of managerial risk-taking. After all, subsidiaries and headquarters enjoy different standards and levels of risk and opportunity assessment, which drives diverse investment opportunities and uncorrelated operating earnings. Thus, by acquiring culturally distant targets, acquirers will build stronger internal resilience against market uncertainty. In addition, like institutional distance, cultural distance has been reported to result in lower levels of market co-movement (Lucey & Zhang, 2010). Thus, with both institutional distance and

cultural distance, acquirers can not only strengthen their internal resilience, but also reduce their sensitivity to market-level shocks, ultimately reducing their combined systematic risk.

Following Kwok and Reeb (2000), acquirers of upstream targets (where the acquirer's institutional environment is less developed than the target's) have a better ability to arbitrage markets and leverage their capabilities towards reducing risk. On the other hand, acquirers of downstream targets (acquirer's institutional environment is more developed than the target's) enjoy the portability of corporate governance and improve their targets' capabilities at resource exploitation, which also decreases their exposure to regulatory and environmental uncertainties. We therefore posit that, in the presence of high institutional distance (from either downstream or upstream markets), acquiring a culturally distant target will mitigate the acquirer's risk; however, as in *H3* and *H4* above, we appreciate that the effects of downstream and upstream distance may differ in magnitude, so we put forward two distinct hypotheses:

H8: The higher the institutional distance between the acquirer's country and a downstream target's country, the lower is the effect of cultural distance on the acquirer's shift in risk.

H9: The higher the institutional distance between the acquirer's country and an upstream target's country, the lower is the effect of cultural distance on the acquirer's shift in risk.

DATA AND METHODOLOGY

The Sample of Cross-border M&As

We collected data on US acquirers and foreign targets in completed deals from Thomson EIKON Deals (formerly Thomson One - SDC), combining it with archival accounting data from Compustat and share price data from CRSP. To include a merger in our sample, we employed a number of criteria in line with the majority of the relevant empirical studies. Our original sample included all completed deals during the period 2000-2014, where the acquirer was a US firm listed on one of the three main US exchanges (i.e. New York Stock Exchange; NASDAQ; AMEX) and the target was a non-US firm, either public or private. The size of the deal had to exceed $1 million with a minimum of a 5% stake sought by the acquirer during the deal. To ensure that the voting and cash flow rights in the target company were transferred to the shareholders of the acquirer, acquisitions of associates and minority stakes were also excluded from the analysis, and the acquirer's stake in the target company after deal completion had to exceed 50%. Broadly, these baseline parameters ensured that only significant and representative takeover deals would be included in the sample, while the exchange of small (minority) stakes and any similar over-the-counter transactions would be excluded. In addition to the above, sufficient, reliable, and accurate data for a number of essential accounting variables had to be available from Compustat and CRSP. These screening criteria and this procedure resulted in a sample of 1,893 cross-border deals for which we were able to collect data on all of the necessary variables.

Dependent Variable and Model Specification

With respect to measuring cross-border M&A risk, Lee and Caves (1998) suggest three alternatives: the variance of profits, the variance of abnormal stock market returns, and the turnover of a foreign subsidiary through shutdown and divestiture. Based on detailed comparisons and high correlations among these three measures (Lee & Caves, 1998), we measure M&A risk by stock market volatility using Carhart's Four-Factor Model (1997).

In modern portfolio theory, risk comprises two main components, namely *systematic* risk, broadly defined as a firm's returns sensitivity to market returns, and *unsystematic* (or idiosyncratic) risk, which is the uncertainty specific to particular assets or firms. While unsystematic risk is inherent to a specific firm or industry, due to various unexpected factors – such as a new market entrant, regulatory shifts, shortages in labor, parts, etc. – systematic risk arises from market-wide shocks – such as changes in GDP, inflation, interest rates, government policies, or even acts of nature – which introduce uncertainty across all market participants. In asset pricing, investors – and by extension firms – can diversify away the unsystematic component of risk (i.e. firm-specific risk) by holding a broad range of asset classes, which cancel each other out. However, since the exposure of a portfolio to the entire market cannot be mitigated through diversification, systematic risk remains the component with the most relevance for firms and investors. As cross-border acquisitions can utilize differences across international markets, they are devices firms may be able to use to lower their systematic risk. Therefore, systematic risk is a particularly relevant measure of risk for our analysis.

While standard event study methodologies normally estimate the information content of M&A announcements and other news, by means of abnormal returns, using some variant of the market model benchmark, we take a different approach. Unlike ordinary events that mainly influence cash flows – and whose information content can be estimated by a standard event study – a merger causes changes in both the risk and returns of individual securities. As a matter of fact, Brown, Harlow, & Tinic (1988) showed that many events cause the variance of returns to shift due to a temporary (or permanent) shift in systematic risk, so that the use of common methods may fail (Boehmer, Masumeci, & Poulsen, 1991). If the news about the merger impacts on a firm's systematic risk, on top of any future cash flows, benchmark parameters (factor loadings) estimated unconditionally during the estimation period (pre M&A announcement) will be biased and unable to be employed in the event window (post M&A announcement), since the betas may have shifted. Most event studies use pre-announcement benchmark parameters to estimate post-announcement returns, while our aim is to actually model possible shifts in risk. Therefore, following MacKinlay (1997), to address whether an event impacts on risk we need to formulate the market model to allow betas to change over the event.

In modeling the share price returns of cross-border acquirers, we opt for the Carhart Four-Factor Model. While the majority of the literature has examined similar events using residuals from single-factor asset pricing models, such as the market model or the Capital Asset Pricing Model (CAPM), multifactor models have been reported to explain more variation in the cross-section of average stock returns (over

95% compared to 70% on average by the CAPM). Fama and French (1993), particularly, point out that residuals from three-factor regressions will do a better job in isolating the firm-specific components of returns in event studies of the stock-price response to firm-specific information. A multifactor model is therefore more apt for the purposes of our study.

Using daily share price returns data from CRSP, we first calculate Total Risk as the total variability in a security's returns (Lubatkin & O'Neill, 1987), measured as the standard deviation of a firm's returns after accounting for the risk-free rate, $\sigma(\mathrm{R_{it}} - \mathrm{R_{ft}})$. Thus, we calculate the standard deviation of the daily returns for each acquirer six months (120 trading days) before and six months after a cross-border M&A announcement as follows: $TR(t,T) = \sqrt{\sum \frac{(x-\bar{x})^2}{(n-1)}}$.

To estimate the acquirer's systematic risk before and after each announcement we use the Carhart Four-Factor Model:

$$R_{it} - R_{ft} = \alpha_{it} + \beta_{1i}\left(R_m - R_f\right)_t + \beta_{2i}HML + \beta_{3i}SMB_t + \beta_{4i}UMD_t + \varepsilon_{it} \quad (1)$$

where $R_{it} - R_{ft}$ is the excess return of firm i minus the one-month T-bill (risk-free) return at time t. In the Carhart Four-Factor Model, α_{it} is the risk-adjusted abnormal return of firm i; $\left(R_m - R_f\right)_t$ is the difference between the daily NYSE-AMEX-NASDAQ value-weighted market portfolio returns and the risk-free return; high minus low *(HML)* is the difference between the returns on a portfolio of high book-to-market stocks and a portfolio of low book-to-market stocks; small minus big *(SMB)* is the difference between the returns on a portfolio of small stocks and a portfolio of large stocks and is a proxy for small-firm risk; up minus down *(UMD)* is the return on a zero-cost portfolio that is long previous return winners and short previous loser stocks, which controls for momentum, the empirically observed tendency for rising asset prices to rise further and falling prices to keep falling. Therefore, the four risk parameter coefficients (factor loadings) β_{1-4i} jointly represent the systematic risk of the firm.

Having estimated risk parameters for every firm in our sample during both periods, before and after the merger announcement, we proceed to calculate Systematic Risk $SR(t,T)$for each period, by adjusting Total Risk $TR(t,T)$ using the coefficient of determination (R^2) of eq. 1 above as follows:

$$SR(t,T) = \sqrt{TR(t,T)^2 \cdot R^2(t,T)} \quad (2)$$

Finally, we calculate the annualized systematic risk for the two periods as

$$AnnSR(t,T) = SR(t,T) \cdot \sqrt{252} \quad (3)$$

and our dependent variable ($\Delta Risk$) is the difference in the annualized systematic risk of the acquirer's stock returns during the 120 trading days after the acquisition announcement and that during the 120 trading days prior to the announcement:

$$\Delta Risk_i = \frac{AnnSR_{i(0,120)} - AnnSR_{i(-120,-1)}}{AnnSR_{i(-120,-1)}} \quad (4)$$

A positive value of $\Delta Risk$ indicates an increase in the systematic risk for the acquirer and a negative one suggests a decrease in the risk. To explain the variation in the post-acquisition changes in the acquirers' risk and directly test our study hypotheses, we employ the following general equation:

$$\begin{aligned} \Delta Risk_i = {} & \beta_0 + \beta_1 IR_i + \beta_2 CD_i + \beta_3 ID_{D\,i} + \beta_4 ID_{U\,i} + \beta_5 IR_i \times CD_i \\ & + \beta_6 IR_i \times ID_{D\,i} + \beta_7 IR_i \times ID_{U\,i} + \beta_8 CD_i \times ID_{D\,i} \\ & + \beta_9 CD_i \times ID_{U\,i} + \beta_{10} X_i + \beta_{11} Y_i + \varepsilon_i \end{aligned} \qquad (5)$$

where IR_i is *Industry Relatedness* for each deal (*i*) in the sample, CD_i is the *Cultural Distance* between the acquirer's (US) and the target's nation, $ID_{D\,i}$ and $ID_{U\,i}$ is the *Institutional Distance* for downstream and upstream deals respectively, X_i denotes a set of control variables known to influence systematic risk, and Y_i is a set of year fixed effects.

Independent Variables

We measure *Industry Relatedness (IR)* as a dummy variable, which equals one if the acquirer and the target share the same primary four-digit SIC industry code and zero otherwise. We calculate *Cultural Distance (CD)* based on Hofstede's (2001) four cultural dimensions, using the composite measure from Zhou et al. (2016). Specifically, for each M&A deal in our dataset we compute the cultural distance as $\left[\sum_{i=1}^{4}(S_{T,i} - S_{A,i})^2\right]/4$, where $S_{T,i}$ and $S_{A,i}$ denote the cultural scores of the target and home (US) countries respectively. Kaufmann et al. (2011) measure country governance quality using World Governance Indicators (published by the World Bank) on control of corruption, government effectiveness, political stability, regulatory quality, rule of law, and voice and accountability. Following Ellis et al. (2017), we measure *Institutional Distance (ID)* as the averaged differences between the target country's and the US's scores on each dimension. We categorize *ID* into *Downstream Institutional Distance (ID$_D$)* when *ID* is negative and into *Upstream Institutional Distance (ID$_U$)* when *ID* is positive.

Control Variables

To control for pre-acquisition risk-magnitude effects and also to calibrate our sample to the "regular" levels of systematic risk for each firm, we control for $AnnSR_{(-120,-1)}$, the acquirer's pre-M&A annualized risk during the six months prior to the announcement. We also expect the broader economic conditions and the mergers market to play a significant role in forming the acquirers' post-merger risk reactions. Hence, we first employ the dummy variable *Recession,* which takes the value one for deals that took place during the global financial crisis of 2008-2010 and zero otherwise. Along the same lines, as merger waves are identified as a key driver of takeover activity in the M&A literature, we use the dummy variable *Merger wave,* which takes the value of one for deals that took place during 2003-2008 (the 6th wave) and after 2012 (the still ongoing 7th wave) and zero otherwise. Following Han (2007), we also control for changes in the CBOE Volatility Index (VIX), which represents the average implied volatility of the at-the-money index options 30 days before expiration and is therefore a valid proxy for the instantaneous volatility of the S&P 500

index. To proxy for market sentiment, we employ the American Association of Individual Investors (AAII) sentiment measure, deriving from a weekly (every Thursday) survey of individual investors, where responses are classified as bullish, bearish, or neutral. Following Fisher and Statman (2006) and Kurov (2008), we compute an investor sentiment index as the number of bullish investors expressed as a percentage of the number of bullish plus bearish investors. We match both variables, ΔVIX and ΔSentiment, to the event window of our dependent variable. ΔVIX is therefore measured as the difference in VIX and $\Delta Sentiment$ as the difference in the mean AAII sentiment, between 120 trading days after and 120 trading days prior to the announcement.

We also control for deal-level variables that might confound our dependent variable. We control for the percentage of the deal value paid in *Cash*, since stock payments can reduce the information asymmetry by linking the payment to the target performance, while cash payments indicate confidence on the part of the acquirer about the deal. We also control for *Relative Deal Size*, the ratio of the total amount paid to the target, to the acquirer's market value at the year-end prior to the deal. In addition, the *Percent of Shares Acquired* indicates the level of control the acquirer has over the target, which predicts the return and risk the acquirer shares with the target. Firm-level variables expected to influence our dependent variable are the acquirer's *Price/Book Ratio* and *Leverage* (ratio of total debt to total assets). The *Price/Book Ratio* is used to control for whether the acquirer's stock is undervalued or overvalued, while leverage is an important financial ratio predicting financial distress and failure (Beaver, 1966).

Descriptive Statistics

Table 1 shows the distribution of the sample by various groups. It is important to note that cross-border M&As, on average, generate a 0.18 (18%) significant increase in risk. Panel A presents the sample distribution across target nations. The UK and Canada are the top two target nations for US acquirers, making up 20% and 16% of our sample, respectively. In addition, on average, the most significant risk increase comes from deals targeted in India, Italy, and Israel. While India, Italy, and Israel are the countries showing the greatest risk increase, they share different levels of cultural distance and/or institutional distance with the US. For example, India is very different in culture and institutions from the US, while Italy is more similar to the US in both respects. However, the deals targeted in both India and Italy show the largest increases in post-acquisition risk. Thus, preliminarily, cultural distance and institutional distance cannot fully explain the increase in the acquirer's risk. In the countries at a high cultural distance from the US, we also see a worse institutional environment than that of the US (e.g., Mexico has a score of 20.54 for cultural distance and one of -1.39 for institutional distance). Panel B shows the distribution of the sample by acquirer's industry. The business services and electronic equipment industries account for the largest percentages, at 21.1% and 12% of our sample. Pharmaceutical products, petroleum and natural gas, and precious metals respectively make 50.7%, 54.3%, and 64% related acquisitions, while banking acquirers make no related acquisitions. We cannot obtain a clear picture of the relationship between related acquisitions and the risk increase from Panel B. We distribute our sample by year in Panel C. The year 2008

sees a significant post-announcement risk increase of 0.64, while 2009 shows a significant risk decrease of -0.30, mainly attributable to the financial crisis. US cross-border acquirers in our sample also experienced significant risk increases in 2000 and 2002, and a significant risk decrease in 2012.

------Insert Table 1 here-----

Table 2 reports the descriptive statistics and pairwise correlations among all variables. The mean value of *Industry Relatedness* is 0.31, indicating that we have more unrelated than related acquisitions in our sample. The mean of *Absolute Institutional Distance* is 0.481, and that of the indicator for *Upstream* deals is 0.67, which shows that US companies in our sample predominately acquire targets in upstream countries (UK, Canada, Germany, Australia), as is also shown in Table 1. Most of the deals are paid for in cash (93.32%) and US acquirers, on average, pursue a large, controlling stake (86.49%). Cross-correlations in the table are as expected and do not raise much concern about collinearity. It is noteworthy that *Cultural Distance* and our *Upstream* deals indicator present a relatively high negative correlation (-0.74), suggesting that target countries at a high cultural distance from the US in general present a poorer institutional environment. As Ahern et al. (2015) point out, national institutions are very likely interrelated with culture, such that cultural and institutional distances can be jointly and endogenously determined. While it is not the purpose of our study to make causal inferences between the two, high correlations across explanatory variables raise collinearity concerns. To address such concerns, care was taken to ensure that, in all econometric specifications, highly related terms were mean-centered and carefully combined. The splitting of our institutional distance measure into upstream and downstream measures (Kwok & Reeb, 2000) and the subsequent mean-centering of all distance scores was applied to help reduce first-order correlations to acceptable levels, while variance inflation factors (VIFs) were used to detect multicollinearity.

------ *Insert Table 2 here* ------

EMPIRICAL RESULTS

The results of the multivariate regression models are presented in Table 3. In the first column, the base model shows the coefficient estimates for the benchmark specification with an intercept and all control variables, for $\Delta Risk$ as the dependent variable. In column 2, the main effects model includes the direct effects from the independent variables (IR, CD, ID_D and ID_U), including all controls and year fixed effects. In column 3, in the model labelled IR × CD, we add the interaction term between *Industry Relatedness* and *Cultural Distance*. The model named IR × ID (column 4) presents the main effects plus two separate interaction terms between *Industry Relatedness* and *Downstream Institutional Distance*, and *Industry Relatedness* and *Upstream Institutional Distance*. Finally, in column 5, the model denoted by CD × ID shows the results for all main effects plus the two interaction terms between *Downstream Institutional Distance* and *Cultural Distance* and between *Upstream Institutional Distance* and *Cultural Distance*.

------ Insert Table 3 here ------

Several of our controls show significant effects on the acquirer's risk change. Not surprisingly, *pre-*M&A *Risk (T-120, T-1)* has a negative relationship with Δ*Risk*, and acts as an effective control for the magnitude of the pre-acquisition (baseline) risk. Therefore, in the presence of this control, the remaining variance in Δ*Risk* is net of confounding or scaling properties. Δ*VIX* has a positive coefficient, suggesting that market volatility also amplifies an acquirer's shift in systematic risk in our sample. Meanwhile, Δ*Sentiment* has a negative effect on Δ*Risk,* such that a generally bullish market sentiment reduces market risk. These controls confirm the validity of our dependent variable. It is noteworthy that, while the effect of *Merger Wave* is negative, the *Recession* dummy does not capture any of the acquirer's risk change, despite the fact that, in Table 1 (Panel C), Δ*Risk* appears to spike around the recession period. We attribute this to the rather crude nature of the indicator variables, which span several years and thus do not capture the intricacies that single-year dummies would. In the subsequent estimations, we include year fixed effects to remedy this. According to the positive coefficient of *Relative Deal Size*, the acquirer's risk also increases post acquisition if the target size is large.

The two deal-level factors other than the relative deal size (percentage paid in cash and percentage of shares acquired) are not significant. The reason might be that these two variables do not present much variability in our sample of cross-border M&As. Apparently, cross-border US acquirers, at least in our sample, generally prefer full cash as the payment method (the mean and median of cash payment percentage are 93.32% and 100% as seen in Table 2) and they tend to fully acquire the target firm (the mean and median of percentage of shares acquired are 86.49% and 100%). Both firm-level controls, *Price/Book Ratio* and *Leverage,* are not significant.

The model of main effects shows that the effect of *Industry Relatedness (IR)* is positive and significant ($\beta_1 = 0.050$, $p<0.01$), offering support to Hypothesis *H1*. As *Industry Relatedness* is a dummy variable, the coefficient of 0.05, suggests a 5% *ceteris paribus* increase in annualized risk for non-diversifying acquisitions, a value which is also economically significant. Therefore, contrary to Lubatkin and O'Neill (1987), who found relatedness to decrease risk in domestic acquisitions, we show that, in a cross-border context, relatedness (on its own) has a rather adverse effect on risk. Meanwhile, *Cultural Distance (CD)* and *Institutional Distance (ID)* do not appear – at least directly – to influence risk changes. The coefficient of cultural distance on the acquirer's risk change is nearly zero and insignificant, showing that cultural distance at a country level does not appear to further amplify the increased risk stemming from cultural difference at an organizational level. Whether the nature of the effect of the two layers of "double-layered acculturation" is supplementary or complementary would be a rather interesting item for future investigations. Institutional distance both downstream and upstream decrease the acquirer's post-acquisition risk, but the effects are not significant. One explanation could be that country-level uncertainties alone do not necessarily pose

difficulties or generate opportunities for acquirers. Acquirers need to exploit the integration effect between external (country-level) and internal (firm-level) risk factors to achieve a reduction in risk.

With the introduction of the first interaction term (model 3: IR × CD) into our model, after grand-mean-centering *CD*, the results of the main factors do not change, while the interaction term (IR × CD) has a negative effect on the risk change (β_5 = -0.01, $p<0.01$), in support of *H5*. Thus, in cross-border M&As, relatedness and cultural distance complement each other in producing a risk reduction. As Figure 1 also illustrates, acquirers can best mitigate cross-border acquisition risks when they bid for related targets from culturally distant countries or unrelated targets from culturally proximate countries. In line with the integrated risk management perspective, the results support that the sources of risk behind the two layers of "double-layered acculturation" can simultaneously balance off against each other, reducing overall post-acquisition risk.

------ *Insert Figure 1 here* ------

In column 4 of Table 3 (model IR x ID), the results support that US acquirers can mitigate their risk from related acquisitions by bidding for institutionally distant targets from either downstream (β_6 = -0.177, $p<0.01$) or upstream (β_7 = -0.401, $p<0.05$) countries. Therefore, *H6* and *H7* are both supported, while – also in line with our expectations – the effects on the upstream and downstream sides differ in magnitude. Since the effect size of *Upstream* is around three times bigger than that of *Downstream*, acquirers enjoy the greatest risk reduction by acquiring related targets from upstream countries with higher institutional distance. Thus, the "liability of foreignness" can act as an effective risk mitigation scenario for related acquisitions, as is also shown in Figure 2.

------ *Insert Figure 2 here* ------

Finally, the results in column 5 (model ID x CD) support that bidders experience systematic risk declines when the targets are from upstream countries (β_9 = -0.041, $p<0.1$), in support of *H9*. However, it appears that, for downstream targets, no combination of cultural and institutional distance distinctly influences post-acquisition risk, as we can also see from the interaction plots in Figure 3. Therefore, *H8* is not supported. It can be argued that downstream institutions have more volatile business environments, higher customer risks, and political uncertainties, which firms from upstream countries are not always equipped to address (Kwok & Reeb, 2000). Since the "liability of foreignness" coming from downstream institutions cannot be mitigated by "double-layered acculturation", firms may be better off engaging alternative internal mechanisms, such as the ones suggested by the governance literature, i.e., contingent payouts (Reuer et al., 2004). For all the estimated models in Table 3, we also report mean VIFs. Since the mean VIFs do not exceed 2 in any of the models, we are confident that collinearity is not an issue.

------ *Insert Figure 3 here* ------

ROBUSTNESS CHECKS

In Table 4, we illustrate the results from six sets of robustness checks.

First, we use an alternative measure of institutional distance. Instead of the six dimensions from the World Governance Indicators we employ scores from the Fraser Institute's World Economic Freedom Index (Aybar & Ficici, 2009; North, 1990; Zhou et al., 2016). The index is a scalar variable ranging from 1 (low level of institutional development) to 10 (high level of institutional development). For each deal in our sample, we calculate the difference in the scores for the target's and the acquirer's country as *EFI distance*. The results are quite robust (columns 1-3) and while support for *H1* is weak, the key risk mitigation hypotheses (*H5*, *H6*, *H8*, and *H9*) are supported.

Second, we use Altman Z-scores (Altman, 1968) as an alternative approach to cross-border acquirer risk. Altman's Z-score – widely used as a risk measure across finance and accounting – indicates a firm's likelihood of bankruptcy (Agarwal & Taffler, 2007; Reynolds & Francis, 2000) and is estimated as

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5 \quad (3)$$

where X_1 = Working Capital / Total Assets

X_2 = Retained Earnings / Total Assets

X_3 = Earnings before Interest and Taxes / Total Assets

X_4 = Market Value of Equity/Book Value of Total Debt

X_5 = Sales / Total Assets

For each acquirer in our sample, we first calculate Z-scores one year prior to the announcement (Y_{-1}) and one year after the announcement (Y_{+1}), and then employ the difference between these scores $\Delta Z_{(Y_{-1},Y_{+1})}$ as a new dependent variable in eq. 5. The mean (median) pre-acquisition Z-score is 4.013 (3.454) and the mean (median) change $\Delta Z_{(Y_{-1},Y_{+1})}$ is -0.641 (-0.220). Since a lower Z-score suggests a higher likelihood of bankruptcy, the negative values of $\Delta Z_{(Y_{-1},Y_{+1})}$ are perfectly in line with the general increases in $\Delta Risk$, the change in the annualized systematic risk of the acquirer's stock returns around the M&A announcement, as observed in Table 1. The coefficient estimates in columns 4-6 show that, while the main effects hypotheses (*H1-H4*) are not supported, coefficients β_5, β_6, β_7, and β_8 are positive and significant (at least at 10%), suggesting that combinations of external uncertainties can indeed moderate acquirers' post-merger risk and reduce the likelihood of bankruptcy.

The third set of robustness checks involves limiting our original sample to serial acquirers (i.e., acquirers that had completed at least one cross-border M&A already), to test the consistency of the empirical results for experienced acquirers. The results on the remaining 1,099 deals, shown under columns 7-9, offer support to *H5*, *H6,* and *H9*, suggesting that the integrated risk perspective generally holds for serial/experienced acquirers.

Furthermore, in line with common practice in the M&A empirical literature, we exclude acquisitions by banks, insurance companies, and financial firms (Fama-French Industry Group 17: Banks,

Insurance Companies, and Other Financials). Financials usually present increased leverage and particular risk characteristics (Fama & French, 1992), while they are also often subject to complex domestic and international regulatory backdrops. To ensure that such skewed financial fundamentals and external influences do not drive our results, we exclude 122 deals from our original sample. In columns 10-12, where we re-estimate the full model from eq. 5, the majority of our hypotheses (*H1*, *H5*, *H6*, *H7*, and *H9*) are supported for the remaining 1,771 cross-border acquisitions in our sample.

Finally, given the noteworthy concentration of cross-border targets in the UK (369) and Canada (298), we deemed it necessary to eliminate the possibility that the empirical results were driven by the dominance of these major target markets. As both these target countries present better institutional development than the US (positive institutional distance), there is a risk that *H7* ($IR \times D_U$) and *H9* ($CD \times ID_U$) in particular – which predict that risks from industry relatedness and cultural distance can be mitigated by upstream institutional distance – may no longer hold once these countries are excluded from the analysis. In columns 13-15, where we omit UK deals, although *H1* and *H7* are rejected, the key hypotheses *H5*, *H6*, and *H9* are still supported. These results suggest that, while in the absence of UK deals certain effects are weaker, the integrated risk approach remains an effective risk mitigation mechanism for all other target countries. In columns 16-18, we exclude the Canadian target deals and all results are qualitatively identical to those of the full sample in Table 3.

------ *Insert Table 4 here* ------

DISCUSSION

In this article, we address a gap in the IB literature by investigating the risk side of performance in a cross-border M&A context. We find that the systematic risk of US acquirers of foreign firms rises by about 18% on average during the post-acquisition period. Building on Miller (1992), we theorize and test the integrated risk management perspective in the domain of international M&As. Specifically, we exploit the simultaneous trade-offs among the risks of adverse selection and moral hazard, "double-layered acculturation", and the "liability of foreignness".

Information asymmetry is a fundamental factor leading to the risk of adverse selection. Industry relatedness should decrease the risk of adverse selection, since the acquirer is familiar with the target's business. Nonetheless, acquirers of related targets aim to achieve operational synergies, and are thus likely to attempt a large degree of consolidation. In an international context, high integration and implementation costs do not enable acquirers to realize operational synergy, especially when they become overconfident about their knowledge of the target and underestimate the challenges; the hubris, driven up by related acquisitions, therefore leads to risk increases for international acquirers.

In cross-border M&As, external factors, such as "double-layered acculturation" and the "liability of foreignness" further intensify acquirers' risk by exacerbating and complicating the above internal factors of adverse selection and moral hazard. Nonetheless, our results support that external uncertainties, if configured suitably with internal ones, can mitigate acquirers' risk in international M&As. With cultural

awareness, acquirers can leverage high cultural distance to control industry-relatedness risks. After extending the upstream-downstream hypothesis of Kwok and Reeb (2000) to also account for the direction and magnitude of institutional distance, we find that firms do not necessarily expose themselves to more risk when they engage in acquisitions of downstream targets. However, institutional distance, as the key driver behind "liability of foreignness", can mitigate acquirers' risk from related acquisitions; thus, external uncertainty can mitigate acquirers' risk stemming from internal factors. In addition, we show that – irrespective of target relatedness- upstream acquirers can further mitigate post acquisition risks by internationalizing into culturally distant countries. However, at least from a risk management perspective, we do not find benefits to downstream acquirers who internationalize into countries with both high cultural and institutional distance.

Our results strengthen Miller's (1992) integrated risk management perspective of IB and offer strong support for the notion that risk factors are interactive and cannot be managed alone. As we show, acquirers' cross-border risk is an outcome of complementary and competing effects from such factors as adverse selection, moral hazard problems, cultural distance, and institutional distance. Therefore, our results complement existing research in IB (i.e. Lubatkin & O'Neill, 1987) and international finance (Ahern et al., 2015; Siegel et al., 2011), which examine the influences of cultural and institutional distance in isolation of internal uncertainties.

One limitation of our study is our use of a sample of US acquirers only. In our study, both cultural and institutional distance are measured against the US. This may limit the applicability of integrated risk management to US acquirers. Future research could examine the research questions in a global M&A context where acquirers are from multiple countries. Furthermore, although our sector-based proxy for industry relatedness is in line with the vast majority of the extant M&A empirical research, it may not completely capture the degree of organizational similarity in business traits and goals. To fully measure how acquirers and targets share strategic interdependence, redeploy resources, and combine at an operating level, we would need primary proprietary data from internal firm sources, which are not widely available. Further research might focus on developing reliable and precise proxies for operational similarity.

Our study opens several important avenues for future research. First, future research could investigate the application of integrated risk management in the context of other internationalization strategies (e.g., international joint ventures) or with other types of uncertainties (e.g., political risk). Miller (1992) suggests a variety of levels of uncertainties firms face when internationalizing, thus offering a very solid foundation for future studies. Second, we open a research stream focused on studying and quantifying strategic international risks. With the volatile global environment, as well as the drastic development of technology, risk mitigation plays an increasingly critical role in firms' internationalization. Our measure of risk offers a sound empirical foundation for a more holistic examination of firms' strategic international risks. Third, in this paper we focus on industry relatedness as the primary indicator of firm-level differences. Future research could examine the effects of the inner layer of "double-layered acculturation" (i.e. organizational-level cultural distance) to proxy for information asymmetry and moral hazard. Lastly, with

the help of our theoretical extensions and empirical approach, future research may study the aptness of the integrated risk management perspective on international M&A failure. In other words, does the trade-off among diverse risk factors reduce the probability of cross-border M&A failure? If so, how can international acquirers manage those risk factors?

MANAGERIAL RELEVANCE

Our study provides practical implications for international acquirers, who can mitigate their overall risk by integrating various risk factors. To leverage their exposure to uncertainties such as information asymmetry, moral hazard, and country-level differences, acquirers can utilize the trade-offs across their respective indicators: industry relatedness, cultural distance, and institutional distance. The simultaneous trade-offs across these indicators can provide acquirers with several scenarios for risk mitigation (see Table 5 for a taxonomy and illustrations): in Scenario I, when an acquirer wishes to target a firm in a similar line of business (i.e. High IR), overall post-acquisition risk can be reduced if the target is in a culturally distant country (High CD). In Scenario II, overall acquirer risk also decreases if a similar target is from a country with a very different institutional environment (High ID), particularly a better one. On the other hand, when merging with or taking over a firm in a different industry, overall risk is mitigated when the target is from a proximate cultural (Scenario III) or institutional (Scenario IV) background. Therefore, when an acquirer increases their exposure to information asymmetry and moral hazard – by acquiring a target from a different industry – they should decrease their exposure to the "liability of foreignness" and "double-layered acculturation" – by acquiring a target from a similar culture and institutional environment. Also, in Scenarios V and VI, when an acquirer wants to purchase a target from a foreign country in order to diversify their overall risk, it will be more rewarding to choose a target from a country which is both culturally and institutionally different. In other words, when aiming to diversify risk via overseas acquisitions, firms should seek to increase their exposure to both cultural and institutional uncertainties, especially when they come from countries with better institutions.

Of course, not all uncertainty exposures should necessarily be eliminated, since risk-taking is an important element of the returns generation process in business. However, in scanning for cross-border M&A targets, the exploitation of trade-offs across the aforementioned uncertainties can provide acquirers with the advantage of risk mitigation before they have to invest in a sunk cost. In conclusion, we recommend that acquirers establish uncertainty exposure profiles for international M&As to help optimize their risk-adjusted returns.

------ *Insert Table 5 here* ------

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TABLES AND FIGURES

Table 1: Sample Distribution

Panel A: Sample Distribution by Target Nation

Target Nation	N	Cultural Distance	Institutional Distance	Mean Δ Risk
United Kingdom	369	3.22	0.16	0.16***
Canada	298	3.76	0.31	0.24***
Germany	152	7.82	0.18	0.17***
France	109	14.02	-0.07	0.12**
Australia	102	1.39	0.30	0.15**
China	73	20.79	-1.81	0.23**
Netherlands	62	12.44	0.41	0.12*
Israel	58	14.89	-0.73	0.24**
India	52	14.34	-1.54	0.37***
Sweden	45	15.85	0.47	0.08
Switzerland	44	6.95	0.46	0.08
Brazil	41	17.17	-1.30	0.07
Japan	40	18.42	-0.18	0.15
South Korea	39	22.05	-0.59	0.17**
Spain	34	15.59	-0.33	0.13
Italy	33	8.77	-0.66	0.24**
Mexico	32	20.54	-1.39	0.18
Norway	31	14.78	0.44	0.08
Denmark	26	14.62	0.52	0.11
Ireland-Rep	25	6.81	0.22	0.30**
Other	228	16.72	-0.53	0.20***
Total - Grand Mean	1,893	9.87	-0.12	0.18***

Panel B: Sample Distribution by Acquirer's Industry

Acquirer's Industry	N	% Related Target	Mean Δ Risk
Business Services	398	41.0%	0.20***
Electronic Equipment	223	39.9%	0.09***
Machinery	124	21.8%	0.21***
Computers	104	9.6%	0.10**
Medical Equipment	92	28.3%	0.02
Measuring and Control Equipment	88	12.5%	0.09*
Trading	87	11.5%	0.40***
Pharmaceutical Products	71	50.7%	0.34***
Chemicals	68	27.9%	0.10
Wholesale	49	22.4%	0.15*
Petroleum and Natural Gas	46	54.3%	0.17*
Electrical Equipment	43	14.0%	0.11
Retail	43	27.9%	0.12
Automobiles and Trucks	37	45.9%	0.26**
Consumer Goods	34	32.4%	0.17*
Construction Materials	30	10.0%	0.26**
Steel Works etc	28	21.4%	0.23
Communication	28	25.0%	0.39***
Banking	26	0.0%	0.11
Precious Metals	25	64.0%	0.17
Others	249	37.8%	0.21***
Total - Grand Mean	1,893	31.6%	0.18***

Panel C: Sample Distribution by Year

Year	N	Total Value ($mil)	Median Value	Mean Δ Risk
2000	205	41,385.20	44.06	0.33***
2002	124	18,111.58	30.00	0.35***
2003	119	35,985.33	28.00	-0.02
2004	163	21,816.90	38.80	0.01
2005	171	33,420.07	32.67	0.02
2006	165	32,895.01	48.41	0.06
2007	164	46,841.33	27.15	0.38***
2008	141	36,315.04	36.80	0.64***
2009	88	24,018.80	35.04	-0.30***
2010	122	31,255.21	71.43	0.03
2011	140	43,816.64	57.95	0.61***
2012	140	48,374.15	59.72	-0.15***
2013	121	29,108.87	72.00	0.10**
2014	30	6,048.86	73.92	0.29***
Total - Grand Mean	1,893	449,392.99	41.70	0.18***

*** p<0.01, ** p<0.05, * p<0.1

Table 2 Descriptive Statistics and Correlation Matrix

Panel A: Pairwise Correlations

Model Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
1. Δ Risk	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2. Risk (T_{-120}, T_{-1})	-0.29***	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3. Δ VIX Index (T_0, T_{120})	0.59***	-0.17***	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.
4. Δ AAII Sentiment (T_0, T_{120})	-0.11***	0.03	-0.12***	1.00	.	.	.	.	.	.	.	.	.	.	.	.
5. Merger Wave Dummy	-0.04*	-0.21***	0.05**	-0.02	1.00	.	.	.	.	.	.	.	.	.	.	.
6. Recession Dummy	0.01	0.24***	0.04*	0.10***	-0.38***	1.00	.	.	.	.	.	.	.	.	.	.
7. % Paid in Cash	0.01	-0.04	0.01	0.04	0.01	-0.01	1.00	.	.	.	.	.	.	.	.	.
8. Price/Book Ratio	-0.05**	-0.03	-0.08***	0.04*	0.02	-0.04*	0.02	1.00	.	.	.	.	.	.	.	.
9. Total Debt/Total Assets	0.08***	-0.12***	0.05**	-0.03	0.02	-0.01	0.11***	0.12***	1.00	.	.	.	.	.	.	.
10. Relative Deal Size	0.04*	0.01	-0.02	0.00	-0.03	0.00	-0.18***	-0.10***	0.04	1.00	.	.	.	.	.	.
11. % of Shares Acquired	-0.02	0.00	0.00	0.06**	-0.02	-0.01	-0.11***	0.02	-0.18***	0.13***	1.00	.	.	.	.	.
12. Prior Acquisition Experience	0.01	0.01	0.05**	-0.01	0.00	0.10***	0.08***	-0.08***	0.26***	-0.12***	-0.20***	1.00	.	.	.	.
13. Industry Relatedness	0.01	0.00	-0.03	0.06***	-0.04*	0.05**	-0.08***	0.08***	-0.06***	0.01	-0.01	-0.08***	1.00	.	.	.
14. Cultural Distance	0.00	0.00	0.01	-0.02	0.00	0.02	0.03	0.04	0.10***	-0.08***	-0.25***	0.15***	0.04	1.00	.	.
15. Absolute Inst. Distance	0.02	-0.06**	0.00	0.00	0.00	0.02	0.01	0.00	0.12***	-0.08***	-0.24***	0.11***	0.06**	0.59***	1.00	.
16. Upstream / Downstream	-0.02	0.01	-0.02	0.02	-0.04*	0.01	-0.02	-0.03	-0.15***	0.11***	0.26***	-0.14***	-0.02	-0.74***	-0.62***	1.00

Panel B: Descriptive Statistics

Model Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
Mean	0.180	0.228	0.331	-0.005	0.750	0.185	93.322	3.126	0.496	0.079	86.497	2.269	0.316	9.870	0.481	0.671
5th Percentile	-0.534	0.076	-8.391	-0.137	0.000	0.000	47.945	0.732	0.151	0.000	10.522	0.000	0.000	1.392	0.054	0.000
Median	0.035	0.192	-0.575	-0.002	1.000	0.000	100.000	2.309	0.490	0.022	100.00	1.000	0.000	7.818	0.321	1.000
95th Percentile	1.496	0.494	11.599	0.118	1.000	1.000	100.000	7.888	0.900	0.322	100.00	9.000	1.000	22.050	1.744	1.000
SD	0.622	0.141	6.621	0.078	0.433	0.389	18.268	3.176	0.215	0.184	28.370	4.845	0.465	6.711	0.497	0.470
N	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893

*** p<0.01, ** p<0.05, * p<0.10

Table 3 Multivariate Regression Analysis

DV: ΔRisk		(1) Base Model	(2) Main Effects	(3) IR × CD	(4) IR × ID	(5) CD × ID
Constant		0.481***	0.478***	0.487***	0.473***	0.478***
		(7.582)	(6.534)	(6.990)	(6.582)	(6.522)
Risk (T-120, T-1)		-0.941***	-1.313***	-1.326***	-1.316***	-1.317***
		(-6.293)	(-10.738)	(-10.667)	(-10.870)	(-10.511)
Δ VIX		0.052***	0.051***	0.051***	0.051***	0.051***
		(16.619)	(16.313)	(16.277)	(16.157)	(16.430)
Δ Sentiment		-0.357***	-0.295***	-0.288***	-0.297***	-0.293***
		(-3.970)	(-3.339)	(-3.146)	(-3.240)	(-3.308)
Merger Wave Dummy		-0.165***	.	.	.	.
		(-3.122)				
Recession Dummy		0.003	.	.	.	.
		(0.099)				
% Paid in Cash		0.000	0.000	0.000	0.000	0.000
		(0.430)	(-0.387)	(-0.516)	(-0.357)	(-0.345)
Price/Book Ratio		-0.001	-0.002	-0.002	-0.002	-0.001
		(-0.190)	(-0.427)	(-0.595)	(-0.571)	(-0.324)
Total Debt/Total Assets		0.071	0.020	0.022	0.020	0.017
		(1.094)	(0.359)	(0.406)	(0.353)	(0.285)
Relative Deal Size		0.188*	0.153	0.151	0.155	0.155
		(1.788)	(1.439)	(1.432)	(1.443)	(1.459)
% of Shares Acquired		-0.001	0.000	0.000	0.000	0.000
		(-1.053)	(-0.450)	(-0.427)	(-0.362)	(-0.358)
Prior M&A Experience		-0.003*	0.001	0.001	0.001	0.001
		(-1.820)	(0.598)	(0.489)	(0.576)	(0.723)
Industry Relatedness (IR)	*(H1)*	.	0.050***	0.051***	0.054***	0.047**
			(3.130)	(3.233)	(3.653)	(2.830)
Cultural Distance (CD)	*(H2)*	.	-0.001	0.003	-0.001	-0.001
			(-0.468)	(1.355)	(-0.371)	(-0.443)
Inst. Distance Downstream (ID_D)	*(H3)*	.	-0.008	-0.004	0.050	0.026
			(-0.326)	(-0.177)	(1.568)	(0.433)
Inst. Distance Upstream (ID_U)	*(H4)*	.	-0.046	-0.062	0.087	-0.066
			(-0.649)	(-0.841)	(1.165)	(-0.944)
IR × CD	*(H5)*	.	.	-0.010***	.	.
				(-4.295)		
IR × ID_D	*(H6)*	.	.	.	-0.177***	.
					(-2.998)	
IR × ID_U	*(H7)*	.	.	.	-0.401**	.
					(-2.401)	
CD × ID_D	*(H8)*	.	.	.	.	-0.004
						(-0.522)
CD × ID_U	*(H9)*	.	.	.	.	-0.041*
						(-2.050)
Year Fixed Effects		No	Yes	Yes	Yes	Yes
Observations		1,893	1,893	1,893	1,893	1,893
R-squared		0.408	0.452	0.454	0.455	0.453
Adj. R-squared		0.404	0.447	0.449	0.450	0.448
Mean VIF		1.116	1.174	1.230	1.269	1.801

This table presents OLS regression results of the effects of Industry Relatedness (IR), Cultural Distance (CD), and Institutional Distance (ID) on Systematic Risk Changes (ΔRisk) surrounding cross-border M&As. The t statistics based on robust standard errors clustered by industry are reported in brackets.
*** p<0.01, ** p<0.05, * p<0.1

Table 4 Robustness Tests

		DV: ΔRisk; ID: EFI			DV: Δ Altman Z-Score			Sample: Serial acquirers		
		(1) IR×CD	(2) IR×ID	(3) CD×ID	(4) IR×CD	(5) IR×ID	(6) CD×ID	(7) IR×CD	(8) IR×ID	(9) CD×ID
Constant		0.092***	0.090***	0.096***	-1.269***	-1.188***	-1.256***	0.521***	0.500***	0.512***
IR	*(H1)*	0.004	0.003	0.005	-0.092	-0.007	-0.094	0.031	0.028	0.020
CD	*(H2)*	0.000	0.000	-0.001**	-0.004	0.001	-0.001	0.002	-0.001	-0.001
ID_D	*(H3)*	0.007	0.017**	0.020***	0.214*	0.021	-0.133	0.025	0.084**	0.027
ID_U	*(H4)*	0.012	0.014	-0.021	-0.535**	-0.652*	-0.545**	0.053	0.169	0.054
IR×CD	*(H5)*	-0.002**	.	.	0.015*	.	.	-0.010***	.	.
IR× ID_D	*(H6)*	.	-0.031***	.	.	0.511*	.	.	-0.215***	.
IR ×ID_U	*(H7)*	.	-0.015	.	.	1.718***	.	.	-0.304	.
CD × ID_D	*(H8)*	.	.	-0.001**	.	.	0.045*	.	.	0.000
CD × ID_U	*(H9)*	.	.	-0.009***	.	.	-0.022	.	.	-0.040***
Controls: Base Model		✓	✓	✓	✓	✓	✓	✓	✓	✓
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		1,893	1,893	1,893	1,535	1,535	1,535	1,099	1,099	1,099
Adj. R-squared		0.533	0.534	0.533	0.126	0.075	0.126	0.488	0.489	0.486
Mean VIF		1.337	1.403	1.860	1.254	1.298	1.811	1.289	1.320	1.815
		Sample: Excl. Financials			Sample: Excl. United Kingdom			Sample: Excl. Canada		
		(10) IR×CD	(11) IR×ID	(12) CD×ID	(13) IR×CD	(14) IR×ID	(15) CD×ID	(16) IR×CD	(17) IR×ID	(18) CD×ID
Constant		0.475***	0.459***	0.463***	0.515***	0.505***	0.500***	0.454***	0.439***	0.450***
IR	*(H1)*	0.055***	0.057***	0.051***	0.024	0.018	0.012	0.060***	0.043***	0.041**
CD	*(H2)*	0.004**	0.000	0.000	0.000	-0.002	-0.001	0.005*	0.001	0.000
ID_D	*(H3)*	-0.008	0.050	0.037	-0.001	0.053	0.021	-0.010	0.044	0.016
ID_U	*(H4)*	-0.071	0.056	-0.070	-0.124	-0.085	-0.052	-0.119	0.047	-0.091
IR×CD	*(H5)*	-0.011***	.	.	-0.006**	.	.	-0.011***	.	.
IR× ID_D	*(H6)*	.	-0.180**	.	.	-0.172***	.	.	-0.179**	.
IR ×ID_U	*(H7)*	.	-0.325*	.	.	-0.087	.	.	-0.462**	.
CD × ID_D	*(H8)*	.	.	-0.006	.	.	-0.003	.	.	-0.003
CD × ID_U	*(H9)*	.	.	-0.035*	.	.	-0.044**	.	.	-0.037*
Controls: Base Model		✓	✓	✓	✓	✓	✓	✓	✓	✓
Year Fixed Effects		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		1,771	1,771	1,771	1,524	1,524	1,524	1,595	1,595	1,595
Adj. R-squared		0.447	0.447	0.445	0.435	0.437	0.435	0.462	0.463	0.459
Mean VIF		1.221	1.266	1.766	1.243	1.281	1.821	1.244	1.278	1.819

This table presents OLS regression results of the effects of Industry Relatedness (IR), Cultural Distance (CD) and Downstream - Upstream Institutional Distance (ID_D - ID_U) on acquirer systematic risk changes around cross-border M&As. Robust standard errors (not reported) were clustered by industry. *** p<0.01, ** p<0.05, * p<0.1

Table 5 Managerial Relevance of Empirical Results

Panel A: Risk Implications of Empirical Results

	Scenario	Industry Relatedness (IR)	Cultural Distance (CD)	Institutional Distance (ID)
Risk-Mitigating Scenarios	#1	High	High	·
	#2	High	·	High
	#3	Low	Low	·
	#4	Low	·	Low
	#5	·	High	High
	#6	·	Low	Low
Risk-Increasing Scenarios	#7	High	Low	·
	#8	High	·	Low
	#9	Low	High	·
	#10	Low	·	High
	#11	·	High	Low
	#12	·	Low	High

Panel B: Illustrative Example Scenarios

Acquirer Industry:	Pre-packaged Software
Acquirer SIC:	7372
Acquirer Nation:	USA

	Scenario	Target Industry	Target Nation	SIC	CD	ID
Risk-Mitigating Scenarios	#1	Pre-packaged Software	South Korea	7372	22.05	·
	#2	Pre-packaged Software	China	7372	·	-1.806
	#3	Computer Peripheral Equipment	Canada	3577	3.76	·
	#4	Computer Peripheral Equipment	Belgium	3577	·	0.029
	#5	·	Indonesia	·	21.84	-2.267
	#6	·	United Kingdom	·	3.22	0.158
Risk-Increasing Scenarios	#7	Pre-packaged Software	Canada	7372	3.76	·
	#8	Pre-packaged Software	Belgium	7372	·	0.029
	#9	Computer Peripheral Equipment	South Korea	3577	22.05	·
	#10	Computer Peripheral Equipment	China	3577	·	-1.806
	#11	·	Portugal	·	22.90	-0.128
	#12	·	South Africa	·	6.92	-1.007

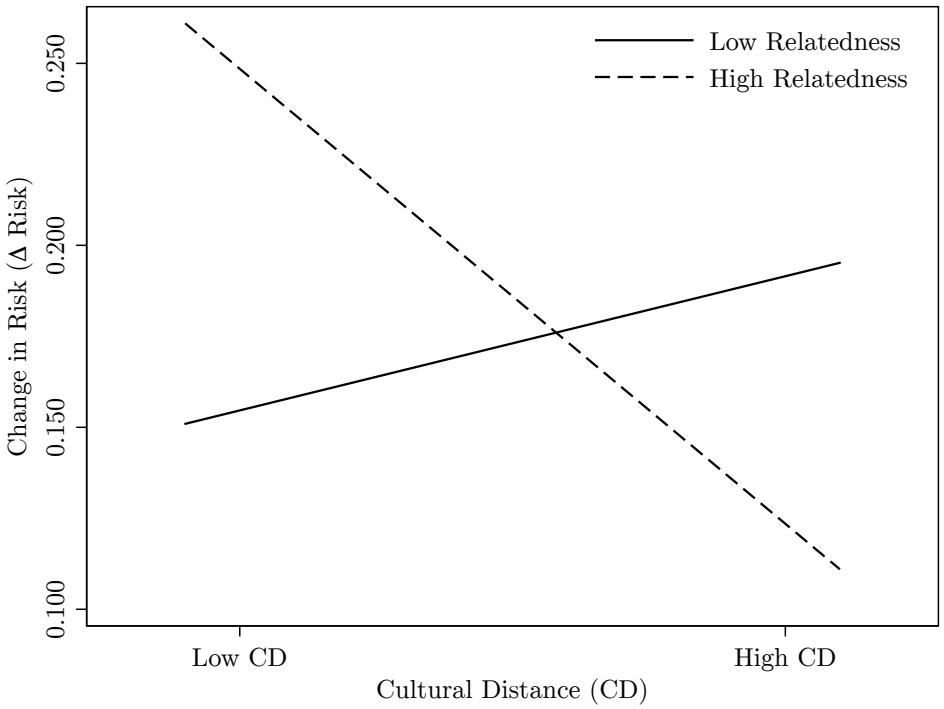

Figure 1 Interaction Effects of Industry Relatedness and Cultural Distance

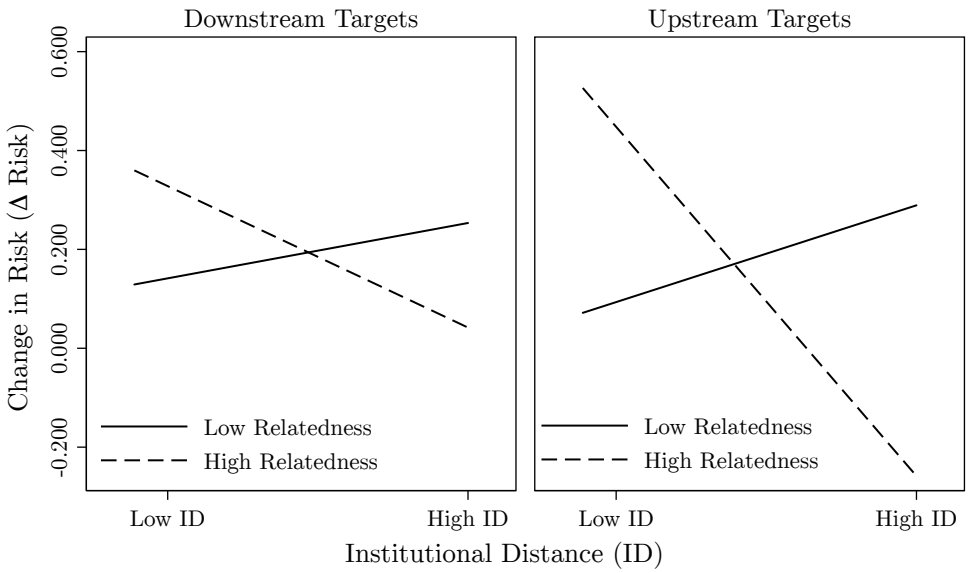

Figure 2 Interaction Effects of Industry Relatedness and Institutional Distance

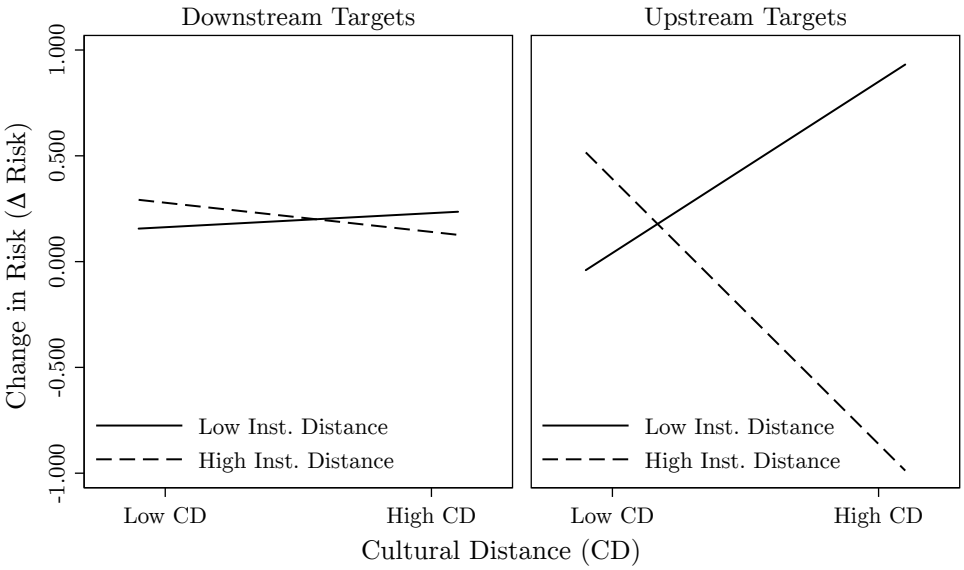

Figure 3 Interaction Effects of Institutional Distance and Cultural Distance