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### The role of endogenous and exogenous risk in FDI entry choices

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# **THE ROLE OF ENDOGENOUS AND EXOGENOUS RISK IN FDI ENTRY CHOICES**

**Abstract:** FDI research has presented consistent evidence that firm experience moderates the effect of risk on entry in a new foreign market. This conclusion is contested by recent research. By revisiting the conceptualisation of risk by economists and behaviourists, we show that the proposed learning mechanism only applies to endogenous risk, not exogenous risk. As assessing endogenous risk involves self-evaluation of risk-reducing capability, it is posited that firms have differential tendencies to take such risks even when experience and ownership are accounted for. We find both observed and unobserved variations in firms' responses to endogenous risk, as opposed to exogenous risk.

**Keywords:** location choice; experience; political risk; FDI; behavioural theory

## INTRODUCTION

International business (IB) research has shown an enduring interest in how experience influences firms' foreign direct investment behaviour (Martin & Salomon, 2003). However, this theoretical relationship has not been adequately specified (Padmanabhan & Cho, 1999). One prominent example lies in the international risk literature. Evidence suggests that firms' experience with high-risk countries can moderate the negative effect of risk on subsequent entries into other countries (Del Sol & Kogan, 2007; Delios & Henisz, 2003b; Holburn & Zelner, 2010). Yet this literature is almost exclusively focused on "political and institutional constraint" as a source of risk, and whether this theoretical stance can be generalised is less known.

This gap in the literature has important implications. If the moderating effect is rightly rooted in the organisational learning theory as previous studies contend, we might need to exercise caution on the generalisability of the conclusion outside its theoretical boundary and establish the conditions under which firm experience can confer ownership advantages driving foreign expansion. Recent research has attempted to close this gap by comparing the effect of different types of risks. Garcia-Canal and Guillén (2008) find that firms from regulated industries respond to macroeconomic risk and policy instability in opposite ways. Oetzel and Oh (2014) view political risk as continuous, and natural disaster, technological disaster and terrorist attack as discontinuous risk. They show that experience is not a source of ownership advantage for firms to overcome discontinuous risk when entering foreign markets. This is in contrast to the received wisdom based on the analysis of political risk. Maitland and Sammartino (2015a) propose that political risk may arise in different forms under two power settings – "status quo" and "change in status quo", which may have varying theoretical implications.

In embracing the tension between the economic and behavioural point of view as to how risk should be conceptualised, we draw a distinction between endogenous and exogenous risk. It is best manifest in March and Shapira (1987) who contrast gambling which involves predetermined odds with managerial risk taking where managers believe they can exert a certain degree of control over the outcomes. Accordingly, we define exogenous risk as determined fully by the external environment,

and endogenous risk as that which can be influenced by firms and managers. Our definition is fundamentally different from Hagigi & Sivakumar (2009) who define as “endogenous” any risks that arise from within the MNE and “exogenous risks”, those that are external to the firm. It also varies from Luo & Bu’s (2018) usage of the term “endogenous” as they refer to the firm’s internal forces and processes that lead the firm to become a risk-taker.

To compare with previous findings, we discuss both dimensions within the categories of political risk (endogenous risk) and industrial/technological disaster (exogenous risk). Under the “status quo” setting, political institutions literature suggests that political risk is an endogenous variable as multinational enterprises (MNEs) have “the ability to block adverse and/or promote favourable policy change” within the given political structure (Henisz, 2003: 181) through corporate political action and lobbying (Hillmann, Keim, & Scule, 2004). Unlike the “status-quo” setting, MNEs have little ability to forestall the occurrence of external events like industrial and technological disasters, natural catastrophes or terroristic attacks. While they can hedge and insure against the costs emanating from such endogenous risks, they have to take the risk as given. Despite this important distinction between endogenous and exogenous risk, previous studies tend to conflate them and generalise the conclusion from one dimension to the other.

To be sure, one can draw a spectrum where one end is pure endogenous risk and the other pure exogenous risk. Any risk is a mix of both with varying weights. Nevertheless, drawing this conceptual distinction may help us understand the contradictory effect of experience as observed by previous studies. In addition, we extend the argument to the process of learning, and shed light on the residual, unobserved heterogeneity in firms’ responses to endogenous versus exogenous risk by reference to organisational learning theory. Finally, despite the equivocal findings of experiential learning, the experience-as-learning argument is much researched. Our hypotheses are tested on a sample of Chinese listed manufacturing firms in the period 2008-2012.

We make two contributions to the literature. First, we reconcile the contradictory findings as to whether experience can mitigate the negative impact of risk on first market entry. We show that the received conclusion derived from the studies of political institutions cannot be generalised to all types of risks as not all types of risk can be influenced by the firm. There is a boundary for experiential

learning beyond which experienced firms no longer enjoy advantages over their less experienced counterparts. Literature sees a whole host of terms being used and different typologies established to describe country risk. Yet, little attention has been paid to the nature of risk *per se*. We show that revisiting the concept of risk itself and a theory-based approach to understanding the dimensionality of risk may yield important insights into FDI decisions.

Second, we extend the learning literature by discussing unobserved heterogeneity in MNEs' location strategies. Previous studies attribute the link between experience and FDI decisions to learning and capability. However, experience alone is not a sufficient condition for learning. A missing link in this relationship is cognition. We find a significant variation in the responses to endogenous risk among MNEs originated from the same home country. This is not evident with regard to exogenous risk. We ascribe the inter-firm variation to the unobservable role of subjective performance feedback and the way in which managers interpret the efficacy of prior strategies in a new context. Unobserved heterogeneity is unaddressed by previous studies using firm level data and singular models, and this calls for further research on behavioural strategy.

## **THEORY AND HYPOTHESES**

### **Exogenous risk and endogenous risk**

Research across economics, finance, marketing and strategy that discusses risk in theory either harks back to Knight's (1921) definition or takes it for granted as the received conceptual base for risk.

Knight conceives of risk as measurable probabilities of alternative outcome states, and uses statistical probability to gauge risk when possible outcome states can be classified into classes and when empirical data can be obtained to indicate the frequency of those classes. Because the underlying, true probability distribution of the outcomes is presumably stationary, more confidence can be placed on the statistical probability as empirical data accumulates over time. This conceptualisation has a lasting influence particularly on neoclassical economics (Miller, 2009), upon which the mainstream IB theory is established (Buckley & Casson, 2009).

Risk can be dealt with through hedging and insurance and is thus considered an insignificant issue (Meltzer, 1982). Whenever risk cannot be fully hedged in insurance markets, as in cross-border

investments (Henisz, 2003), firms are assumed to take it as given and to adjust resource allocation to align with the environmental prospects (Miller & Friesen, 1980). For sure, firms' responses to risk may vary depending on their subjective understanding of risk. But to Knight and his followers, the subjectivity is lodged in the differential judgmental ability to classify events in order to depict distributions rather than in the interplay between decision makers and the environment (Miller, 2007). In other words, risk is treated as an exogenous element of the external environment. Political risk in this case refers to the instability of political conditions, including change of legislation, regime, civil war and societal unrest, which may incur monetary and other losses to MNEs (Aharoni, 1966; Miller, 1993). This understanding of risk is particularly evident in country level studies of FDI where political risk is assumed to be entirely exogenous to MNEs, which respond only passively to the environmental characteristics of the host country (Buckley, Clegg, et al., 2007; Globerman & Shapiro, 2003; Loree & Guisinger, 1995).

On the other hand, behavioural decision theory challenges this mechanist view on risk. Behaviourists suggest that unlike gamblers faced with predetermined odds, managers believe that the riskiness of a choice in managerial situations can be controlled and reduced to an acceptable level due to their skills, talents and capabilities (March & Shapira, 1987; McCrimmon & Wehrung, 1986). Managers are found to infuse this belief into the decision making process regarding high-risk, strategic investments (Chatterjee & Hambrick, 2011). This conceptualisation of risk is echoed by other behavioural schools such as organisational learning theory and is generally well received in the IB literature.

IB scholars suggest that country risk has multiple dimensions and these risk concepts need to accommodate a whole host of dimensions (Brown, Cavusgil, & Lord, 2015; Fitzpatrick, 1983; Miller, 1992). Both political institutions and non-market strategy literature focus on a particular element of political risk which is a function of the political constraints upon the authorities' discretionary behaviour, and over which firms enjoy a certain degree of control (Bonardi, Hillman, & Keim, 2005; Henisz, 2000). Henisz and Zelner (2010: 91) state clearly that "insurance offers limited protection against policy risk because a firm's exposure is largely determined by its own ability to manage the policy-making process". Such political capabilities allow firms to interact with the host country

authorities in pursuit of preferential treatment, and to preempt or block adverse policy changes (Boddeyn & Brewer, 1994; Hillman & Hitt, 1999), creating a potential ownership advantage for MNEs (Henisz, 2003). Empirical evidence suggests that proactive management of the relationship with the host country government is a common strategy for MNEs to enter industries with strong government involvement and countries with unpredictable policy environment (Bonardi, 2004; Garcia-Canal & Guillén, 2008; Holburn & Zelner, 2010; Lawton, Rajwani, & Doh, 2013). Differential lobbying skills to engage local actors as surrogate may lead the identical location to pose varying level of risk to two otherwise similar MNEs. Rather than passively assessing the environment *per se*, MNE managers take into consideration their own ability to enact a favourable firm-environment relationship and develop FDI entry strategies in accordance (Ring et al., 1990). Giambona, Graham and Harvey (2018), however, caution against this perspective by arguing that firms are increasingly avoiding politically risky countries rather than attempting to engage with challenging environments. This finding gains weight when we turn to exogenous risks.

While Henisz and co-authors have tried to avoid using “risk” and instead introduced terms as varied as policy uncertainty, political hazard, political constraint and institutional idiosyncrasy, many tend to merge this research with the broad literature examining the effect of risk and uncertainty on FDI decisions and expansion (Henisz & Zelner, 2010). In doing so, they conflate risk events that can be influenced and shaped (not just hedged against) by firms with those that cannot be affected by firms. In management theory, there are notable distinctions between exogenous environment that cannot be influenced by firms, and endogenous environments that in part results from firms’ own behaviour (Weick, 1979). As even endogenous risks have become increasingly difficult to manage and navigate (Giambona *et al.*, 2018), the rationale for exogenous risks being regarded as outside the influence of MNEs and having a diverse impact on MNEs has become stronger. One example is the received bifurcation between endogenous and exogenous uncertainty in the real option literature (Cuypers & Martin, 2009; Folta, 1998). Notable endogenous risks concern threats deriving from rare events such terrorism attacks, natural and industrial/technological disasters, for example (Lampel, Shamsie, & Shapira, 2009; Oh & Oetzel, 2011; Oh, 2017). The latter carries additional risks for the

MNE because of the socio-cognitive categorisation that holds businesses to account for failures of firms in the same industry or product category (Diestre & Rajagopalan, 2014).

Following the behavioural perspective, we define exogenous risk as fully determined by the external environment, and endogenous risk as those that can be influenced by firms and managers. While any risk in reality is a mix of both, disentangling two distinct dimensions of risk offers researchers the opportunity to examine their different theoretical implications.

### **Risk, experience and market entry FDI**

There is a sizable body of literature on the relationship between host country risk and firms' foreign entry. Both survey and secondary data research at the firm level reach a general conclusion that MNEs tend to avoid investing in countries with high risk and reduce the level of resource commitment should they choose to enter (Delios & Henisz, 2003a; Delios & Henisz, 2003b; Garcia-Canal & Guillén, 2008; Henisz & Delios, 2001, 2004; Holburn & Zelner, 2010; Oetzel & Oh, 2014; Slangen & Beugelsdijk, 2010). This literature follows from new institutional economics that explains how firms' behaviour is affected by the administrative context in which they operate (North, 1990). Much of the discussion about risk has centred on the host government's discretionary policymaking capacities and the lack of checks and balances on their commitment to the rules of the game.

Further, the political institutions literature finds additional evidence that firms are not equally affected by host country risk. Some are less deterred, and some even proactively search for markets where the authorities' monopoly control over formal rules is unchecked so that they can negotiate preferential treatment relative to the competitors (Garcia-Canal & Guillén, 2008). A prominent explanation for this heterogeneity in entry behaviour is firms' differential stock of experience in the same or similar environment – at home or abroad (Cuervo-Cazurra, 2011; Del Sol & Kogan, 2007; Delios & Henisz, 2003b; Holburn & Zelner, 2010). Experienced firms can to some extent overcome the threat of host country political risk, as evidenced by their spatial choice and ownership stake.

Previous studies attribute this observation to organisational learning since experience is an important channel through which capabilities can be built (Zollo & Winter, 2002). Experiential learning develops knowledge about the extent to which an institutional configuration can harm foreign

investors, and help managers create firm-specific coping mechanisms through which they can exercise control over the policy environment in other countries (Henisz, 2003). Such mechanisms include forming a political network to acquire insider information and engaging in back-stage activities to obtain desirable regulatory conditions, among others (Hillman & Hitt, 1999). More importantly, the experiential knowledge as to which coping mechanism is best suited to tackle a political situation would eventually be transformed to mental models and “selection heuristics” in particular, which influence the way in which managers evaluate the attractiveness of location alternatives in subsequent foreign investments (Bingham & Eisenhardt, 2011; Maitland & Sammartino, 2015a; Maitland & Sammartino, 2015b). Repeated exposure to the same risk may convince managers that they can rely on coping mechanisms to contain the effect of adversity and to condition the odds suggested by the external information (Oetzel & Oh, 2014). While the effectiveness of the coping mechanisms largely depends on the relevance of previous experiences to the current context (Delios & Henisz, 2003b; Maitland & Sammartino, 2015a; Perkins, 2014), it does not necessarily require context-specific experience for a firm to enter a high-risk country. The breadth and heterogeneity of previous experience enriches firms’ cognitive resources in identifying power structure dynamics, and can compensate for the lack of experience in the focal country (Jiménez, Luis-Rico, & Benito-Osorio, 2014; Maitland & Sammartino, 2015a; Powell & Rhee, 2016).

While the conclusion that experience can moderate the negative effect of risk on entry remains well-received, it is predicated on two assumptions. First, organisational learning can help firms to fashion an operating environment that is less risky so that the decision to exploit ownership advantages in a foreign market can be justified. Second, firms take into account this competence in decision-making and evaluate risk as compared to their own competence (Jiménez et al., 2014). The first assumption fits well with risk being endogenous, which by its nature can be influenced by managerial efforts. Yet, it does not hold when the environmental risk is exogenously determined. In such cases, risk can no longer be reduced in any significant sense and firms do not enjoy any substantial advantage of lower risk over others, regardless of their experience.

Prominent examples of exogenous risk occurring in the wider operating environment include industrial/technological disasters, natural disasters, terrorist attacks and sudden political turmoil,

which are difficult to anticipate and could have a tremendous impact on firms' performance and survival. Under these threats, firms can do little beyond developing reactive strategies and business continuity plans. Some firms may be better prepared than others in that they can swiftly evacuate personnel, switch to alternative supply chains and acquire recovery assistance from the host country and the representatives of the home country (Webb, Tierney, & Dahlhamer, 2002). Yet, such preparedness requires experience specifically related to suffering or managing very similar risks, and even repeated experiences of that kind (Oetzel & Oh, 2014). This is often not the case for many MNEs given the rare and idiosyncratic nature of these risks leads them to the belief that there is little that can be learned from a rare event (Lampel et al., 2009; Starbuck, 2009), not least emerging multinationals (EMNEs) which have only recently started to invest internationally. Even if they had such experience, the risk they face would not be substantially different to that faced by inexperienced firms. Empirical evidence confirms that experience with high-impact terrorist attacks as well as natural and technological disasters has no effect on entry into other countries suffering similar conditions (Oetzel and Oh, 2014). As experience offers little advantage now, an entry is more difficult to justify, *ceteris paribus*.

Consensus has been reached in the literature that both policy instability and host country disasters reduce the likelihood of entry by foreign firms in general (Buckley & Casson, 1998; Henisz & Delios, 2001). But how experience affects this relationship depending on the nature of the risks is less well understood. We argue that international experience is useful for firms to tackle endogenous risk rather than exogenous risk and thus hypothesise:

**Hypothesis 1a:** *MNEs with greater international experience are less deterred by host country endogenous risk than those with less experience when entering a new country.*

**Hypothesis 1b:** *International experience has a stronger effect on MNEs' responses to endogenous risk than to exogenous risk.*

If firms learn from previous overseas investments and utilise this knowledge when they enter a new market, then this should be, *ceteris paribus*, be true for different ownership forms as well. Our study focuses on Chinese OFDI and we will therefore consider here the country specific context.

Chinese OFDI has been dominated by state-owned enterprises (SOEs). They have either invested overseas based on their own commercial and strategic volition, or have been engaged in and supported Chinese government initiatives such as the Belt & Road Initiative. Either route to OFDI allows the Chinese firm to obtain first-hand experience about how to deal with endogenous risk factors in overseas markets. The overall impact of this experience is, however, diminished by their ownership form. The Chinese government exerts extensive influence over SOEs which leads them to conduct more OFDI that are strategic from a geopolitical and national perspective, and less so from a firm-level perspective. Moreover, bilateral government relationships and the influence the Chinese government may have over the host country's government may constrain the extent to which Chinese SOEs learn from previous investments but also function as a risk buffer for SOEs. As with international experience, this influence should be constraint to endogenous risk.

**Hypothesis 2a:** *SOEs are less deterred by host country endogenous risk than other MNEs.*

**Hypothesis 2b:** *SOE has a stronger effect on MNEs' responses to endogenous risk than to exogenous risk.*

### **Unobserved heterogeneity in risk taking**

Employing behavioural theory enables us to establish a relationship between observed heterogeneity in firms' responses to endogenous *vs.* exogenous risks. This does not yet explain, however, the residual unobserved heterogeneity.

Organisational learning theory suggests that experiential learning not only gives specific guidance for behaviour but also develops mental models for future decision making. Given the complexity of strategic decisions, managers commonly utilise simplifying mental models to economise on limited cognitive capacity (Gavetti & Levinthal, 2000). In the case of risk assessment, mental models may be concerned with what informational cues are indicative of risk, where to find that information, and what constitute the evaluation criteria for interpreting the information (Bingham & Eisenhardt, 2011; Bingham, Eisenhardt, & Furr, 2007). Assessing endogenous risk requires an additional mental model. For instance, firms face such an eventuality in the *ex-post* policy environment that the favourable terms negotiated at the time of entry may be altered by the host

country government in an obsolescing bargaining scenario. Thus, managers have to factor into the entry decision their ability to guard against the overturning, alteration or reinterpretation of policy commitments (Boddewyn & Brewer, 1994; Delios & Henisz, 2003a). When managers evaluate an entry opportunity, a biased overestimation of their own ability is often preferred to the external, unbiased performance distribution in a market (Wu & Knott, 2006). Hence it is conceivable that endogenous risk would trigger a particular mental model that concerns the efficacy of the knowledge and ability possessed at the point of entry.

Undoubtedly, developing this mental model involves experiential learning. Two factors, often unobservable from firm level data, play an important role in the learning process. First is the performance feedback from previous experience which provides direct information in shaping this mental model (Bateman & Zeithaml, 1989; Chatterjee & Hambrick, 2011; Sitkin & Weingart, 1995). The outcome history of forestalling the occurrence of unfavourable scenarios presents strong evidence to managers on the extent to which their managerial capabilities can help to control the risk in this particular task (March & Shapira, 1987). Under what circumstances the coping mechanisms have succeeded or failed may be translated into managers' stereotypes and provide them with a frame of reference in evaluating new situations (Garud & Rappa, 1994). When the environmental change fits the specific pattern that firms have encountered in the past, this frame of reference contributes to the understanding of the causal relationship and provides guidance for commitment decisions. If the outcomes are inconsistent with expectation, firms acquire new knowledge as to how the boundary of this mental model is conditioned by context-specific characteristics. A critical but often unaccounted factor in this process is that performance feedback is based on managers' subjective evaluation as to whether the coping mechanisms are considered to have succeeded or failed (Zollo, 2009), which is often unobserved by the outsiders.

Second is the interpretation of previous experience by firms without international experience. Those from the same home country supposedly share a similar mental model on how to fashion the regulatory environment in their favour since the institutional context conditions the way firms have operated and shapes the categories of behaviour that managers accept as legitimate (Kostova & Zaheer, 1999; Peng, Wang, & Jiang, 2008). The most informative source of capability cues is now

experience in the home country. It is documented that adjusting the mental model for the structural differences between previous experience and the current context can enhance performance in the new context (Haleblian & Finkelstein, 1999; Williams & Grégoire, 2015). Yet the structural differences between home and foreign environments are masked with substantial uncertainty and are difficult for inexperienced firms to discern (Gavetti, Levinthal, & Rivkin, 2005). Firms are unlikely to distinguish the structural similarity from the surface one and may fill in the details of the situation with default assumptions consistent with the existing mental model. On the one hand, perceived legitimacy of the current practices tends to remain unchallenged without being exposed to institutional pressures (Kostova & Zaheer, 1999). On the other hand, the absence of a concept in the home environment can leave firms unable to comprehend how regulatory, normative and cognitive institutions work in other countries. The lack of relevant experience limits firms' ability to update the mental models and may lead some to "superstitious learning" (Levitt & March, 1988). Managers may well place varying degrees of confidence on the extent to which the coping mechanisms they have successfully employed in the home country can bear fruit in foreign environments (Zollo, 2009).

Therefore, we expect unobserved variation in firms' responses to endogenous risk after accounting for their experience. For experienced firms, this is attributable to the role of managers' subjective performance feedback in shaping mental models regarding taking these risks. For inexperienced firms, this may be because of managers' varying perception of the applicability of home country strategies in foreign markets.

**Hypothesis 3a:** *There is unobserved variation in MNEs' responses to host country endogenous risk.*

We have argued that firms that have more experience with foreign operations do not possess an advantage of lower exogenous risk over the less experienced firms. Even though firms are unlikely to think they can secure an environment more favourable than others regarding exogenous risk, it does not rule out the possibility that they may vary in their predictions of risk and therefore still display differential propensities to enter high-risk countries. Research suggests that some managers and firms employ more complex evaluation heuristics and may achieve more accurate assessment of exogenous risk than others (Maitland & Sammartino, 2015a). But the economic theory of risk contends that the

quality of prediction does not depend on experiential learning. “Commitment decisions are based on several kinds of knowledge” (Johanson & Vahlne, 1977: 24), and objective knowledge may confer equally important value as experiential knowledge in the assessment of exogenous risk. Thus, we do not expect that firms have any noticeable reasons to differ systematically in the prediction of exogenous risk.

Organisational learning theory suggests that useful information regarding risk assessment includes the extent to which the outbreak of exogenous risks affects incumbent firms of similar characteristics including size, industry and country-of-origin, and whether the affected firms managed to mitigate the magnitude of loss in any replicable ways (Haunschild & Sullivan, 2002). The consequences of natural disasters, terroristic attacks or sudden conflicts are well documented (e.g., Uppsala Conflict Data Program or Global Terrorism Database (GTD)) and are public knowledge to all potential entrants and often brought under the spotlight by the media (Kasperson et al., 1988). Repercussions against non-affected firms following an industrial disaster at another firm are not as readily available because their impact resides at the firm rather than the regional or country level (Diestre & Rajagopalan, 2014). Yet, because these rare events are more clearly demarcated than creeping expropriation and other unseen disruptions, exogenous risk leads to visible impact and salient outcomes that draw disproportionate attention from potential entrants (March, Sproull, & Tamuz, 1991). Such incidents lead firms to avoid allocating resources to high-risk countries given the incumbents’ undesirable outcomes, or otherwise replicate their mitigating practices that have proved effective. The vicarious learning benefit may help reduce the exposure to disaster (Madsen, 2008) and is closely related to the so-called “second-mover advantage” (Teece, 1986).

On the other hand, developing sophisticated predictive models is often outside firms’ core area of expertise so that there is only minor gap between skilful and less skilful firms. By gathering more publicly available data on the triggers and conditions underlying the outbreak of past endogenous events, less skilful firms can improve the understanding of the outcome distribution and close the gap in predictive ability. Alternatively, firms can always resort to organisations that specialised in assessing countries’ environmental (e.g., Munich Re’s NatCatService) or terrorism (e.g., Risk Management Solutions (RMS)) risks. These organisations maintain large databases for a

range of countries and gather predictive opinions from experts who have a superior ability to classify recent events than MNEs (Meltzer, 1982). As opposed to the fact that the firm-specific nature of endogenous risk renders experiential knowledge particularly crucial (Henisz & Zelner, 2010), external information now becomes an equally if not more important input to managers' subjective impressions about the exogenous risk in the host environment (Kobrin, Basek, Blank, & Palombara, 1980).

Handing over part of the responsibility of managing exogenous risk to insurers is also feasible. Unlike the case of endogenous risk, insuring against exogenous risk does not qualitatively differ from using financial instruments to hedge against volatile exchange rates (Henisz & Zelner, 2010). Incumbents rarely possess an informational advantage in their ability to mitigate the magnitude of externally determined risks over the insurers so that insurers can use the baseline risk premiums associated with the incumbents to price a policy for new entrants (Henisz, 2003). Therefore, we have no *a priori* reason to suggest that firms vary in the way they perceive and respond to the exogenous risk when entering a given host country.

**Hypothesis 3b:** *There is no unobserved variation in MNEs' responses to host country exogenous risk.*

## METHODS

### Sample and data

We test our hypotheses on listed Chinese MNEs' FDI location choices in the period 2008-2012. We intentionally focus on the immediate aftermath of the Global Financial Crisis as MNEs in general are faced with heightened political and macroeconomic risk in this period, which have evidently affected their entry and expansion strategy in foreign territories (MIGA, 2014). A single home-country design allows us to control for the variation in the domestic mindset, which is shaped by the institutional environment in which the firms operate. We drew the sample of foreign investment from the Chinese Ministry of Commerce (MOFCOM) Directory of Foreign Investment Enterprises and matched the firm list with those traded on the domestic stock exchanges provided by China Securities Regulatory Commission (CSRC). We cross-checked the foreign investment activities with the CSMAR database – a widely-used source of parent firm data on Chinese listed companies. Complementary data were retrieved from firms' annual reports, which provide further details on those investments made through

the foreign subsidiaries rather than by the parent firms. We excluded the investment projects located in three major offshore tax havens for Chinese companies – Cayman Islands, British Virgin Islands and Hong Kong (Buckley, Sutherland, Voss, & El-Gohari, 2015) – as well as those in Macau. To control for the broad industry effect, we restricted the sample to manufacturing firms according to the two-digit industry classification of listed firms by CSRC. We combined the information from MOFCOM with firm annual reports to obtain the data on firms' international experience. Host country location-specific indicators were collected from various sources (see Table 1). After taking one-year lag and deleting observations with missing host country data, we obtained a sample of 506 location choices made by 212 firms in 59 countries. We excluded expansionary investments and obtained our final sample of 414 first time entries. The comprehensiveness of our sample was further verified with the Bureau van Dijk (BvD) Osiris database.

## Measurement

*Dependent variable.* Our market entry choice variable  $Y_{ijt}$  is a binary measure taking a value of one if firm  $i$  invested in country  $j$  in year  $t$ , and zero otherwise. In the cases where a firm makes multiple investments in a given country in a single year, they are counted as one location choice and the dependent variable coded as one regardless of the number of entries (Lu, Liu, Wright, & Filatotchev, 2014).

*Independent variables.* To study *endogenous risk*, we draw from the World Governance Indicators (WGI) published by the World Bank. WGI depict six dimensions of the institutions by which authority in a country is exercised. Previous research has used the WGI to study MNEs' location choice (Lu et al., 2014; Ramasamy, Yeung, & Laforet, 2012), entry mode (Slangen & van Tulder, 2009), amount of activities (Slangen & Beugelsdijk, 2010) and divestment (Oh & Oetzel, 2011). One advantage of the WGI is that they summarise information from 32 existing data sources published by 30 institutes using statistical aggregation methods so as to alleviate measurement errors associated with any single indicator (Kaufmann, Kraay, & Mastruzzi, 2010). Previous studies tend to aggregate all six dimensions to a composite indicator and lose potentially important theoretical

implications of different dimensions (Slangen & Beugelsdijk, 2010; Slangen & van Tulder, 2009). Although the dimensions are highly correlated with one another and factor analysis suggests that above 80 per cent of the variances are loaded on one factor, not all of them can be used as an appropriate proxy for host country endogenous risk. Risk measures need to be able to reflect the likelihood of unexpected changes that may incur losses, as opposed to “cost”, “challenge” and the current level of institutional development. We explore the underlying questions that make up these dimensions and confirm that “Rule of Law” measures the extent to which agents have confidence in and abide by the rules of society, particularly regarding expropriation, observance and enforceability of contracts, property right protection, judicial check on government regulations, judicial independence from political interference, and crime. We define endogenous risk for host country  $j$  in year  $t$  as

$$ENDORISK_{jk} = -1 \times \text{Rule of Law}_{jt}.$$

In measuring *exogenous risk*, we draw on previous research that examines the impact of disasters on MNEs’ strategic commitments (Oetzel & Oh, 2014; Oh & Oetzel, 2011). In line with recent studies (Oh, 2017; Pek, Oh, & Rivera, 2018), we focus on industrial and technological disasters since they occur more frequently than natural disasters and are more related to the economic activities that MNEs will engage in. Rooted in the economic system, industrial and technological disasters will cause unavoidable losses to the MNE as they impact on its key value chain partners and damage critical infrastructure in the host economy upon which the MNE’s local operations are dependent. Using data from EM-DAT, a widely recognized source for disasters information, we gauge the magnitude of exogenous risk by the number of casualties resulting from industrial and technological disasters.

*Control variables.* We include firms’ international experience (*experience*) as moderator and covariate in our analyses. Previous research suggests that experience breadth has a stronger learning effect on FDI decision making than experience depth (Maitland & Sammartino, 2015a). We thus measure international experience by the number of foreign countries in which the focal firm has

established one or more subsidiaries. We also include *SOE* as a covariate, indicating whether the firm is controlled by the Chinese state with regard to ownership.

Building upon extant studies, we control for a number of commonly featured host country attributes that may influence MNEs' location choices. To account for market-seeking investment, we measure market size by the natural log of *GDP* and market attractiveness by the natural log of *GDP per capita* (Duanmu, 2014). To account for efficiency-seeking investment, we use the percentage of total unemployment (*Unemployment*) (Duanmu, 2014). To account for asset-seeking investment, we measure sought-after resources by the natural log of one plus the number of patents granted to residents in the host country (*Patent*) (Alcantara & Mitsuhashi, 2012; Chung & Alcacer, 2002). To account for resource-seeking investment, we factor in the total resource rents as indicated by the differences between the value of natural resources at world prices and the total costs of production in the host country, as a percentage of GDP (*Natural resources*) (Alcantara & Mitsuhashi, 2012). *FDI openness* is measured by the ratio of a country's net FDI inflow to its GDP (Henisz & Delios, 2001). *Trade relation* reflects bilateral economic ties as denoted by the natural log of Chinese exports to the host country plus Chinese imports from the host country (Quer, Claver, & Rienda, 2012). Although we removed the investments in tax havens from our sample, tax rate is still considered one of the main location advantages by foreign investors, and is measured by the corporate marginal tax rate of a host country (*Tax*) (Duanmu, 2012). Given that host country institutions are shown to influence MNEs' entry rate, we take into account the immediate institutional environment regarding FDI using the "Business Impact of Rules on FDI" item from the Global Competitiveness Index (*Rules of FDI*). As part of the World Economic Forum's annual survey, it reflects the extensive opinions of business leaders around the world on the extent to what rules and regulations encourage or discourage foreign direct investment in their countries. Finally, we control for the influence of culture using the cultural block distance (Delios & Henisz, 2003b). Following Barkema, Bell, and Pennings (1996), we establish an ordinal ranking of cultural blocks in terms of their comparative distance from China (*Culture*) (Ronen & Shenkar, 2013). The same block as China is scored one, the most proximate two and so on. Descriptive statistics of the host country attributes and their measurement are shown in Table 1, and Table 2 presents the correlation matrix.

## Estimation methods

Consistent with previous studies (Buckley, Devinney, & Louviere, 2007; Chung & Alcacer, 2002), we model the location choices within the random utility framework. The utility of firm  $i$  for location  $j$  in choice occasion  $t$  is:

$$U_{ijt} = \beta_i x_{ijt} + \varepsilon_{ijt}$$

where  $x_{ijt}$  is a vector of observed location specific attributes;  $\beta_i$  is a vector of firm-specific preference parameters or marginal utilities yet unobserved for each  $i$ ; and  $\varepsilon_{ijt}$  is the random component.

A logit model is employed given the dichotomous dependent variable. Our hypotheses address how the attractiveness of location attributes varies by firm. To accommodate preference heterogeneity, we adopt mixed logit (MIXL) model that allows all parameters to be different across  $i$  (Train, 2009).  $\beta_i$  varies in the population as per the continuous density  $f(\beta_i|\theta)$  where  $\theta$  defines the distribution, and this distribution in theory can take any shape. For the ease of estimation, we assume the random parameters to be independently normally distributed. Normal distribution is by far the most popular specification in previous applications of the MIXL (e.g., Chung & Alcacer, 2002). Arguably, having to choose the mixing distribution *a priori* is an inherent drawback of continuous segmentation models and potentially runs the risk of biased estimation. Nevertheless, normal distribution allows for both positive and negative values and stands as a useful assumption when no prior information is available. The parameter vector  $\beta_i$  can be expressed as:

$$\beta_i = \beta + \eta_i$$

where  $\eta_i \sim N(0, \sigma^2)$ . The influence of firm-specific characteristics is reflected in  $\beta_i$  and particularly in the deviation term  $\eta_i$ . We further accommodate observed preference heterogeneity in the model by introducing firm-specific covariates. Thus  $\beta_i$  can be rewritten as:

$$\beta_i = \beta + \Pi z_i + \eta_i$$

where  $z_i$  is a selection of characteristics of firm  $i$  that influence the mean of the random preference parameters, and  $\eta_i$  is the residual variation. In our application,  $z_i$  refers to firms'

international and regional experience. Given that the choice probability is an integral over the mixing distribution so that it cannot be calculated analytically, we use 3000 Halton draws from the distribution  $f(\beta_i|\theta)$  to approximate each firm's unconditional probability density (Train, 2009) and then maximise the simulated log-likelihood function (Revelt & Train, 1998).

While one might question the appropriateness of imposing *a priori* a mixing distribution on the preference parameters, MIXL has the advantage of revealing unobserved heterogeneity. It provides estimates for both the mean and standard deviation of the preference parameters so as to reveal whether and which location attributes are valued differently across the population (Chung & Alcacer, 2002). An additional advantage is that MIXL allows us to account for and test observed heterogeneity simultaneously and relax conditional logit's independence of irrelevant alternatives (IIA) assumption.

## Results

Given our hypothesis on unobserved heterogeneity, we allow all the parameters to be random and examine which of the location attributes are valued differently across the firms. We first contrast the mixed logit model with its fixed-effects equivalent, i.e. alternative-specific conditional logit. The log-likelihood ratio tests clearly prefer the mixed logit model ( $p < 0.000$ ).

Table 3 (Models 1 and 2) provides the estimates of the means and standard deviations of  $\beta_i$  for the baseline specification. Firms respond to endogenous risk differently, but are equally deterred by exogenous risk, lending further support to the adoption of the random parameter specification. The results of mixed logit models show that during the study period, Chinese MNEs tend to engage in market-seeking FDI and plausibly show a motive for import-substitution. They also seem to shy away from countries with a strong technological capability. The general pattern resonates with previous research on Chinese outward FDI (Buckley, Cross, Tan, Xin, & Voss, 2008). More importantly, the sampled firms are significantly averse to both endogenous and exogenous risk in FDI location decisions, as expected. Odds ratios suggest that the odds of entry is around 1/3 less when comparing one unit change in endogenous risk with exogenous risk.

Table 3 (Model 3) includes international experience and state-ownership as firm-specific covariates that may influence the mean of the risk parameters. It is shown that international experience breadth increases the mean of the endogenous risk parameter. On average, more experienced firms respond less negatively to endogenous risk when making FDI location choices, compared with their less experienced counterparts. The results confirm Hypothesis 1a. The moderating effect of international experience on exogenous risk is insignificant, supporting Hypothesis 1b. Similarly, SOE positively moderates endogenous risk, suggesting that state controlled MNEs are less averse to endogenous risk when entering a new country, whilst SOE does not influence firms' responses to exogenous risk. Hence Hypotheses 2a and 2b are corroborated.

After the influence of experience on risk taking is accounted for, there is still residual variation in the endogenous risk parameter, as evidenced by its significant standard deviation in Columns 3b. That suggests that firms respond to endogenous risk differently due to unobserved heterogeneity. In contrast, exogenous risk affects firms' location choices in a negative and uniform way, as shown in Columns 3b. This supports our theorisation that explicitly distinguishes between endogenous risk and exogenous risk and confirms Hypothesis 3a and 3b. It should be noted that under the normal distribution assumption, even though some firms may be less deterred by endogenous risk than others, z-scores suggest that they are unlikely to prefer risky locations to less risky ones.

### **Robustness test**

We test the robustness of our results in four aspects. First, when comparing mixed logit with conditional logit, we have chosen to add group dummy in the logit models. As our choice sets contain many alternatives, i.e. host countries, unconditional estimator may produce biased results (Katz, 2001). Previous studies of location choice find only trivial differences in control variables when comparing the results of conditional and unconditional models (Holburn & Zelner, 2010; Oetzel & Oh, 2014). To further eliminate this concern, we also estimate conditional logit and unconditional fixed-effects logit with firm and year dummies on the baseline specification. The results still prefer mixed logit.

Second, there are cases where a firm made more than one location choice and chose more than one country among the same group of countries in a single firm-investment year. This data structure may potentially violate the utility maximisation assumption underlying the random utility theory. In our main specifications, we treat the cases with multiple positive outcomes as different choices and ensure that the correlation between successive market entries by the same firm is accounted for in estimation. To test the robustness our results, we construct an alternative sample that eliminates the problem of multiple location choices in any firm-year. We do so by randomly selecting an investment observation from each firm-year that has multiple location choices and obtain 336 location choices, in which 191 are invested by firms with international experience and 145 by inexperienced firms among 51 host countries. We estimate our models on this sample and compare the results with those of the main specification. Despite the reduced statistical power, the variables of interest remain significant and thus the conclusions hold.

Third, we test the hypotheses using alternative measures of international experience. From both the MOFCOM Directory of Foreign Investment Enterprises and BvD Osiris, we collected data on a) the number of years since first foreign investment, and b) the number of foreign subsidiaries firms have for each firm-year. The results show that log-transformed measures provide lower p-value than the raw measures but all results remain qualitatively the same regardless.

Finally, we check whether our results are sensitive to the way we operationalize endogenous risk. Using data on “Control of Corruption” from the World Governance Indicators, we obtain results that remain qualitatively the same.

## **DISCUSSIONS AND FUTURE RESEARCH**

There is a sizable body of literature as to whether and how MNEs can benefit from experiential learning in foreign expansion. Experience is regarded as an important source of firm capability. This explains why some firms are less deterred by host country risk than others and thus can exploit the economic growth and cost advantages in emerging countries (Feinberg & Gupta, 2009). Yet the conclusion so far remains unsettled as the boundaries of experiential learning are not fully understood.

Moreover, extant research has paid less attention to the role experience plays other than learning in FDI decision-making.

To reconcile the contradictory conclusions of the previous studies (Oetzel & Oh, 2014), we draw a distinction between endogenous and exogenous risk. Endogenous risk is specific to the firm or individual while exogenous risk has uniform impact on the population and cannot be influenced by the MNE (Henisz & Zelner, 2010; Wu & Knott, 2006). This distinction has evolved from the way in which economics and behavioural theory conceptualise managerial risk respectively. To test the validity of this approach, we focus on the dimensionality of risk. Political risk has been assumed to be endogenous to MNEs in the political institutions literature (Henisz & Zelner, 2010). This contrasts with other types of risks that have been considered to be exogenous to the firm (Diestre & Rajagopalan, 2014; Oh, 2017; Oh & Oetzel, 2017). We argue that the familiar indicators of political and institutional risk do not capture the exogenous dimensions of risk.

This distinction proves meaningful because we find that international experience does not confer an advantage in dealing with exogenous risk. The organisational learning argument is corroborated in the sense that only under circumstances where risk can be reduced by firms' own capability would experiential learning become beneficial. Previous studies have drawn this conclusion from industry sectors that are either highly regulated by the government or recently open to private ownership (Henisz & Zelner, 2001; Holburn & Zelner, 2010; Jiménez et al., 2014; Lawton et al., 2013). These industries are particularly exposed to government discretionary regulations (Henisz, 2000) where political capabilities are of crucial importance (Bonardi, 2004). Our study shows that even manufacturing firms – which seem less likely to possess political capabilities and less subject to government intervention – seek to influence the political environment in their favour. The breadth of previous experience across different foreign countries may enhance firms' routines and capabilities regarding the management of regulatory environment, contractual disputes, and expropriation of intellectual properties. In previous studies, the importance and creation of general internationalisation knowledge and routines is less examined than is context-specific knowledge (Eriksson, Johanson, Majkgard, & Sharma, 1997). Our finding implies that the political institutions literature may have broader theoretical implications than have been explored and can link with the vast capabilities

paradigm. The fact that some risks universally scare off foreign investors while others invite well-established MNEs also provides policy implications for the government of less developed countries.

Having invested in a foreign country does not bestow experience and operational insights equally across all foreign investors. Differentiating here between ownership types, our results suggest that SOEs tend to be less influenced by their international experience breadth than other types of MNEs. Endogenous risk relates to how the host government is operating and to what extent it could be influenced by foreign investors. SOEs are accustomed to work with government agencies and are accustomed to manage and shape their endogenous risk. This could mean that SOEs believe they can handle endogenous risks, but the implication is that they could be misled given the objective challenges in countries with weak and malleable institutions. This misbelief is further exaggerated when the SOE takes into consideration how its home country government may attempt to influence the institutional environment diplomatically.

Experience alone is sufficient for learning. The organisational learning literature has extensively discussed the process of learning in relation to performance feedback and knowledge transferability. Firms align entry strategy with the capability they have, which is no doubt a function of experience. Yet two unobserved factors add complexity to this relationship. First, performance feedback that enters the decision function is often a matter of subjective evaluation (Levitt & March, 1988; Zollo, 2009). Second, when the new environment is sufficiently complex and uncertain so that managers are unable to discern structural differences between the old and the new (Gavetti et al., 2005), firms may vary in the perceived efficacy and legitimacy of home-based mental models in foreign markets (Nadkarni, Herrmann, & Perez, 2011). These two factors would increase variance around the risk estimates in a singular, deterministic model. Our random parameter model shows varying preferences for endogenous risk among Chinese investors after taking into account the observed moderating effect of international experience. While we have shown that international experience does not moderate the deterring effect of exogenous risk on FDI entry, there is also no other unknown sources of variation in MNEs' responses to exogenous risk.

Our study raises some important questions for future research. First, if the distinction between endogenous and exogenous risk matters as we have shown, why does it matter? In the

entrepreneurship literature, Wu and Knott (2006) disentangle demand uncertainty and ability uncertainty as involved in market entry decisions. Entrepreneurs are found to display risk aversion to uncertain prospect of market demand and “apparent risk-seeking” to the uncertainty around their own entrepreneurial ability. Thus entrepreneurs may be viewed as having different risk profiles depending on the way in which the researchers observe at them. An interesting point discussed in the IB literature is that managers employ different evaluation criteria at different stages of decision making (Benito, Petersen, & Welch, 2009; Buckley, Devinney, et al., 2007). One might argue that managerial attention is paid to exogenous environment at a different stage than to endogenous environment. Examining the decision making process and identifying when and how risks are considered may draw different conclusions on managers’/firms’ risk taking tendencies. Nevertheless, in the empirical location research, the common practice of restricting the choice set in the analyses to those already-chosen locations in the sample may have constrained researchers’ ability to examine the differences across decision stages. Some risk dimensions that managers do take into account in the consideration stage may appear irrelevant in the final location choices as they only serve to winnow out the undesirable ones so that the chosen locations are roughly equal in those respects (Mudambi & Navarra, 2003). Therefore we call for more process, individual level research on FDI decision making that would lead to a nuanced understanding of how and to what extent managers’ own views come into play in organisation level decisions (Schotter & Beamish, 2013; Williams & Grégoire, 2015).

One promising line of individual level inquiry centres on the different roles of controlled attention processing versus automatic attention processing play in evaluating environmental characteristics (Castellaneta & Zollo, 2015). One might reason that managers devote considerable resources into the assessment of market-related risks which essentially require diligent, in-house efforts to understand the specific impacts of demand and competition contingencies on the focal project and meanwhile rely on stereotyping heuristics to screen out certain host countries with substantial political risk as highlighted by recent political turbulence or due to sheer anxiety induced by a lack of knowledge. The way in which managers engage attention processing may have theoretical implications for the behavioural learning perspective.

Lastly, as the globalisation unfolds and the interdependence of world economies is ever increasing, future research needs to think beyond using the host country as the unit of analysis for risk studies (Bremmer, 2005). Chinese investment in Africa, for instance, may be as much influenced by the host country's underlying political structure as it is by China's strategic decisions. A new political risk measure may be needed that operates at the dyadic level in order to capture the role of government relations in facilitating or hampering FDI. Rather than combining trend and structure indicators, researchers can construct separate measures to account for their different natures; an absolute level of instability, and a dyadic, relative level of political constraint using Mahalanobis distance specification (Perkins, 2014). The dyadic perspective is also aligned with the legitimacy theory of political risk (Stevens, Xie, & Peng, 2016).

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**Table 1. Data sources and descriptive statistics of the location attributes**

Variable	Source	Measurement	N*	Mean	Std. Dev.	Min	Max
<b>Endogenous risk</b>	World Governance Indicators	Reverse of the “Rule of Law” dimension; high values indicate higher risk.	24,426	-0.3651	1.0215	-1.9996	1.6689
<b>Exogenous risk</b>	EM-DAT	The natural log of one plus the number of casualties from industrial and technical disasters	24,426	2.4483	2.2089	0	6.8189
<b>Experience</b>	Annual reports	The natural log of one plus the number of foreign countries with at least one subsidiary	24,426	0.8544	0.8936	0	3.178
<b>SOE</b>	Annual reports	A dummy that equals 1 if the firm is controlled by the state by ownership	24,426	0.4082	0.4915	0	1
<b>GDP</b>	World Bank	The natural log of the GDP in current US\$	24,426	5.6172	1.5878	1.3136	9.6497
<b>GDP per capita</b>	World Bank	The natural log of the GDP per head in current US\$	24,426	9.1220	1.5225	5.5012	11.6417
<b>Unemployment</b>	International Labour Organisation	Total employment, % of total labour force	24,426	7.3582	3.9446	0.7	24.7
<b>FDI openness</b>	IMF	The ratio of FDI net inflows over GDP	24,426	6.0585	31.750	-57.4297	430.6407
<b>Patent</b>	WIPO	The natural log of one plus the total patent grants by applicants’ origin	24,426	6.0859	3.2200	0	12.6270
<b>Natural resource</b>	World Bank	Total natural resources rents, % of GDP	24,426	7.5835	10.131	0	64.0702
<b>Tax</b>	World Bank	Total tax rate, % of commercial profits	24,426	44.5306	17.312	14.1	112.9
<b>Trade</b>	MOFCOM	The natural log of Chinese exports to the host country plus Chinese imports from the host country	24,426	9.4216	1.5417	5.0825	13.0094
<b>Rules of FDI</b>	Global Competitiveness Report	“Business Impact of Rules on FDI” item	24,426	4.8095	0.7495	1.9	6.7
<b>Culture</b>	Ronen and Shenkar (2013)	Ordinal ranking of cultural blocks relative to China	24,426	4.1	1.9468	1	7

\*N = 414 × 59

**Table 2. Correlation matrix**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Endogenous risk	1													
Exogenous risk	0.203	1												
GDP	-0.430	-0.159	1											
GDP per capita	-0.828	-0.174	0.627	1										
Unemployment	0.139	0.076	-0.074	-0.053	1									
FDI openness	-0.129	-0.063	-0.102	0.131	-0.078	1								
Patent	-0.670	-0.177	0.809	0.784	-0.032	0.008	1							
Natural resource	0.485	0.088	-0.133	-0.308	0.025	-0.058	-0.365	1						
Tax	0.191	0.083	0.052	-0.107	0.116	-0.126	0.074	-0.281	1					
Trade relation	-0.339	-0.091	0.884	0.509	-0.178	-0.124	0.723	-0.029	-0.059	1				
Rules of FDI	-0.527	-0.095	-0.064	0.233	-0.193	0.163	0.038	-0.266	-0.355	-0.003	1			
Culture	0.041	0.032	-0.052	0.216	0.283	0.010	0.074	-0.149	0.335	-0.250	-0.265	1		
Intl experience	0.000	-0.003	-0.006	-0.005	-0.005	-0.001	-0.003	0.000	0.003	-0.013	0.022	0.000	1	
SOE	0.000	-0.001	-0.001	-0.001	0.001	0.004	-0.001	-0.001	-0.002	-0.004	-0.008	0.000	0.197	1

**Table 3. Mixed logit models**

	Model 1		Model 2		Model 3	
	Means (1a)	Std. Dev. (1b)	Means (2a)	Std. Dev. (2b)	Means (3a)	Std. Dev. (3b)
<b>H2a ENDORISK</b>	-0.4269* (0.213)	0.3636+ (0.209)			-0.6422** (0.221)	0.3419+ (0.203)
<b>H2b EXORISK</b>			-0.0435+ (0.026)	0.0000 (0.059)	-0.0613+ (0.036)	0.0017 (0.063)
GDP	0.2739** (0.094)	0.0079 (0.132)	0.2389* (0.096)	0.0030 (0.138)	0.2478* (0.097)	0.0004 (0.115)
GDP per capita	-0.0963 (0.156)	0.4869*** (0.121)	0.1510 (0.110)	0.5762 (0.114)	-0.0817 (0.146)	0.4772*** (0.106)
Unemployment	0.0003 (0.018)	0.0035 (0.065)	0.0047 (0.018)	0.0044 (0.057)	0.0016 (0.018)	0.0039 (0.065)
FDI openness	0.0065*** (0.002)	0.0000 (0.002)	0.0056*** (0.002)	0.0000 (0.002)	0.0064*** (0.002)	0.0000 (0.002)
Patent	-0.1364** (0.048)	0.0114 (0.080)	-0.0974* (0.042)	0.0037 (0.078)	-0.1308** (0.048)	0.0002 (0.068)
Natural resource	-0.0028 (0.008)	0.0002 (0.021)	-0.0041 (0.008)	0.0010 (0.051)	-0.0023 (0.008)	0.0012 (0.019)
Tax	0.0003 (0.005)	0.0001 (0.009)	0.0033 (0.005)	0.0002 (0.008)	0.0022 (0.006)	0.0001 (0.008)
Trade relation	0.8638*** (0.131)	0.2803*** (0.075)	0.8247*** (0.127)	0.2936*** (0.075)	0.8651*** (0.130)	0.2738*** (0.077)
Rules of FDI	0.0901 (0.148)	0.0203 (0.378)	0.2284+ (0.120)	0.0109 (0.403)	0.1174 (0.149)	0.0200 (0.388)
Culture	0.1227* (0.050)	0.0284 (0.133)	0.0769+ (0.046)	0.0161 (0.177)	0.1062* (0.053)	0.0359 (0.148)
<b>H1a Int. experience × ENDORISK</b>					0.3155*** (0.086)	
<b>H1b Int. experience × EXORISK</b>					0.0312 (0.027)	
<b>H2b SOE × ENDORISK</b>					0.3109* (0.155)	
<b>H2a SOE × EXORISK</b>					0.0302 (0.049)	
Observations	24,426		24,426		24,426	
Groups	414		414		414	
Log-likelihood	-1435.1		-1436.1		-1424	

Robust standard errors clustered by firm below coefficients.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.1