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# Facilitator or inhibitor? The effect of host-country intellectual property rights protection on China's technology-driven acquisitions

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## ABSTRACT

Acknowledging the importance of technology-driven acquisitions for China, and of host-country intellectual property rights protection (IPRP) in the Tech Cold War era, this study – drawing on institutional-based and springboard logics – investigates the effects of host-country IPRP on China's technology-driven acquisitions. Based on panel data of 377 country/year observations of Chinese listed firms in 29 countries between 2008 and 2020, our results illustrate an inverted U-shaped relationship between the strength of host IPRP institutions and the quantity of China's technology-driven acquisitions. This inverted U-shaped relationship is weakened by home-host economic distance, rather than political distance. Clearly, host-country IPRP matters in Chinese firms' location choices for technology-driven acquisitions and those host countries with IPRP that is either too weak or too strong are unattractive to Chinese acquirers. Our study responds to the debate about the inconsistent findings of IPRP's effects on foreign investments, and enriches the research on springboard internationalization.

## 1. Introduction

Technological change is seen as a prime driving force behind a country's modern economic development. Accordingly, the Chinese government has moved toward an innovation-led growth model and rapidly vamped up its commitment to promote technological upgrading (Howell, 2020). Over recent years, China has made astounding progress in science and technology; this has given it growing global influence, but also caused panic in advanced countries, particularly the United States (U.S.) (Witt, 2019b). This eventually induced a Tech Cold War between the U.S. and China (Leopold, 2020) and, as Leopold (2020) identifies, the U.S. trade war against China's growing technology ambitions has coalesced around intellectual property (IP), with disputes ranging from Chinese abuse of Western intellectual property to the legal concepts underpinning international intellectual property right protections (IPRP). This may be partly because an increasing number of Chinese firms have engaged in M&As in advanced countries as a springboard for sourcing novel technology assets unavailable in the domestic market, thereby broadening their knowledge portfolio and catching up with the incumbent Western giants (e.g., Anderson, Sutherland, & Severe, 2015; Chen, Liu, & Ge, 2021; Deng, 2009; de Oliveira & Rottig, 2018; Elia &

## Santangelo, 2017; Luo & Tung, 2018).

These events and sentiments echo the U.S.-Japan tensions from four decades ago. After experiencing national economic and technological booms, Japanese firms substantially engaged in M&As in Western economies, particularly the U.S., in the 1980 s. This led the U.S. to worry over its technological leadership amid the rising dominance of Japan, which eventually induced trade and technology conflicts between them. However, the U.S.-Japan tension in the 1980 s did not escalate into the type of U.S.-China Tech Cold War we currently observe. This was because of inter-state interdependence, cooperation through negotiations and compromise, shared democratic values, and a strong security alliance. Unlike the U.S.-Japan disputes, which were mainly related to the rise of Japan as an economic power, the U.S. and China have deepseated geopolitical tensions compounding their trade and technology disputes because of the rise of China as an economic and political power. This is highlighted by Luo and Assche (2023: 2), who state that "China's rise as a geopolitical rival to the US illustrates growing tensions between the world's two largest economies, and more broadly between their geopolitically and ideologically divided spheres of influence". Apparently, the U.S.-China Tech Cold War is embedded in an increasing techno-geopolitical uncertainty (Fjellström, Bai, Oliveira, & Fang,

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2023). This war seems to be more complex and is transforming global governance, formulating a techno-nationalist policy environment that multinational enterprises (MNEs) need to navigate (Luo & Assche, 2023).

Because technological capability is anchored to a country's national security and geopolitical power, techno-nationalism and technological decoupling are surging in the Tech Cold War (Luo & Assche, 2023). Many countries therefore take more protective approaches, for example by strengthening IPRP institutions to avoid the diffusion of superior technologies. Cross-border M&A integration across organizational and national boundaries helps investors to leverage technological resources in a globally dispersed network and therefore promotes reverse innovation transfer (Bertrand & Capron, 2015; Degbey & Pelto, 2013), vital for home-country industrial development (Chen et al., 2021). Technology-driven M&As are still, therefore, one of the most important means of China pursuing technological leadership, although we don't yet have clear evidence of the effects of host countries' strengthened IPRP on M&A strategies.

On the matter of how IPRP may influence M&A strategy, the literature reveals contrasting evidence and views. On the one hand, some researchers assert that, as an important institutional arrangement established by the state to protect the intellectual property of individuals or organizations (Berry, 2017; Peng, Ahlstrom, Carraher, & Shi, 2017; Yang & Sonmez, 2013), stringent IPRP is one of a country's location advantages (Dunning & Lundan, 2008), facilitating the location choice of MNEs' foreign investment and acquisition (Alimov & Officer, 2017; Allred & Park, 2007; Coeurderoy & Murray, 2008; Khoury & Peng, 2011; Papageorgiadis, McDonald, Wang, & Park, 2020). In fact, for Chinese MNEs, the Springboard Perspective - to compensate for a relatively poor national innovation system (e.g., weak IPRP) in China (Rui & Yip, 2008) - suggests that technology-driven acquisitions, as springboard acts, are a deliberate strategy adopted by Chinese MNEs to take advantage of well-developed IPRP systems in host countries, particularly advanced countries (Li, Prashantham, Zhou, & Zhou, 2022; Luo & Tung, 2018). In essence, stringent IPRP is conducive to China's technology-driven acquisitions. On the other hand, however, it has become much harder for Chinese MNEs, especially now in the Tech Cold War, to undertake technology-driven M&As effectively in some advanced countries which have tightened their IPRP institutions to secure their technological competitiveness. It is argued that the stringent IPRP of host countries hinders MNEs in acquiring and transferring knowledge (Smeets & de Vaal, 2016), having an adverse effect on Chinese firms' acquisitions (Yoo & Reimann, 2017). In order to prevent technology transfer to China, some countries, such as the U.S. and Australia, have even imposed a technology blockade on Chinese firms on IPRP grounds (Witt, 2019a). For instance, the U.S. launched 301 and 337 investigations of Chinese firms, such as Huawei, ZTE, and DJI, between 2017 and 2019.

Apparently, IPRP strength is a crucial institutional factor in the location choices that Chinese MNEs make when engaging in technology-driven acquisitions. Yet the impact of this is far from clear. Although prior literature has paid substantial attention to Chinese firms' technology-driven M&As (Anderson et al., 2015; Chen et al., 2021; Deng, 2009; de Oliveira & Rottig, 2018; Rui & Yip, 2008), the potential value of heterogeneity in host countries' IPRP has so far been neglected, a critical omission in our understanding of technology-driven acquisitions. In an attempt to begin bridging this gap, drawing on springboard and institutional-based perspectives, we study the relationship between the IPRP of host countries and the technology-driven acquisition location choice of Chinese firms.

The institutional-based view is an important theoretical lens through which to understand IPRP (Berry, 2017; Hagedoorn, Cloodt, & van Kranenburg, 2005; Peng et al., 2017; Yang, 2019) and cross-border M&As, particularly Chinese ones (Greve and Man Zhang, 2017; He & Zhang, 2018; Lawrence, Raithatha, & Rodriguez, 2021; Li et al., 2019; Zhang, Zhou, & Ebbers, 2011). The distance between home and host

institutions is a core issue for MNEs because they are subject to influence from multiple institutions because of their multinational nature (Kostova & Roth, 2002). Institutional distance, through reducing legitimacy and incurring uncertainty and additional costs, is generally regarded as an obstacle to M&As (Dikova, Panibratov, & Veselova, 2019; Dikova, Sahib, & van Witteloostuijn, 2010; Lawrence et al., 2021). However, emerging-market MNEs (EMNEs), seeking novel technologies, are often making aggressive M&As in institutionally distant countries, thereby encountering various specific forms of distance, such as economic, regulatory, political, and cultural distance (Berry, Guillén, & Nan, 2010; Gaffney, Karst, & Clampit, 2016). This is reinforced by the study by Zhou, Xie, and Wang (2016), which illustrates that distance in a country's law and regulations and distance in country-risk have less negative impacts on emerging markets' outbound M&As than on inbound M&As. Also, a recent study by Dong, Li, McDonald, and Xie (2019) identifies that the completion of China's overseas M&As is facilitated by economic distance, but hindered by cultural and regulatory distance. Clearly, the role of various institutional distances in China's technology-driven acquisitions remains unclear. To address this gap, we take a closer look at how two institutional distances - economic and political - moderate IPRP's impact on Chinese firms' technology-driven acquisitions. Economic and political distance are of particular interest to Chinese firms making technology-driven acquisitions; this is because they are directly related to the strategic asset-seeking internationalization of Chinese firms (Colovic, 2011; Gaffney et al., 2016; Jiang et al., 2018) in the Tech Cold War era, characterized by increasing techno-geopolitical

Using panel data from 377 country/year observations, based on 319 technology-driven acquisitions conducted by Chinese listed firms in 29 countries over the period 2008-2020, our results show an inverted Ushaped relationship between the strength of host IPRP institutions and the quantity of Chinese technology-driven acquisitions, and identify that this relationship is weakened by home-host economic distance. Our study has two important contributions to the literature on springboard internationalization and IPRP in relation to Chinese MNEs. First, by adopting an institutional-based view, this study takes a significant step toward understanding which conditions in a host country can attract or deter technology-driven acquisitions from China by taking host-country IPRP, and economic and political distance into consideration. Second, the study gains insights into the location choices and international strategies of Chinese firms by uncovering an inverted U-shaped relationship. It also addresses inconsistent findings in the literature regarding the relationship between host-country IPRP and Chinese firms' technology-driven acquisitions, thereby gaining an in-depth understanding of IPRP institutions' role and the geographical patterns of springboard internationalization.

## 2. Theoretical background

2.1. Springboard perspective: The institutional embeddedness and location choice of technology-driven acquisitions

One of the most important recent trends characterizing foreign direct investments from emerging economies, particularly China, is the search for strategic assets (Anderson et al., 2015; Deng, 2009; Elia & Santangelo, 2017; Fjellström et al., 2023; Li et al., 2022; Luo & Tung, 2018). Chinese enterprises still see themselves as having, at most, an average level of competitiveness and hence their interest in rapid resource and technology acquisition to become globally competitive multinationals (Li, 2010). Under state support (e.g., the "Go global" strategy), an increasing number of Chinese enterprises engage in cross-border M&As as a springboard to obtain strategic assets (such as technology, R&D capacity, etc.) in an effort to upgrade capability and offset their late-comer disadvantage, thereby creating a competitive position in domestic and international markets (Chen et al., 2021; de Oliveira & Rottig, 2018; Rui & Yip, 2008). This asset-augmentation strategy is referred to as

"springboard" internationalization (Luo & Tung, 2018).

Apparently, Chinese MNEs, on the one hand, lack superior technologies, a big constraint in global competition; but, on the other hand, they are supported by their government with favorable policies (e.g., financial assistance) to pursue technological development internationally (Deng, 2009; Li et al., 2019). Thus, a specific type of technology-driven internationalization is coming to the fore as a relevant topic in international business research. This recent phenomenon has no universally agreed definition in the literature. However, many studies make it clear that this type of foreign direct investment strategy is aimed at acquiring advanced technological knowledge and R&D capabilities, mainly available in developed economies, so as to bridge technology gaps rapidly and augment the technological competence of the investing firm (Chen et al., 2021; Deng, 2009; de Oliveira & Rottig, 2018; Elia & Santangelo, 2017; Rui & Yip, 2008). Thus, in the current Tech Cold War era, China seems to maintain this logic, increasingly seeking relevant positioning in advanced markets and technological innovation. On the other hand, however, advanced countries are becoming more rigid and protective to the point of trying to hinder not only Chinese acquisitions explicitly targeting high-tech and strategic industries (Fjellström et al., 2023), but also acquisitions not considered so meaningful, but which appear to be so in relation to the overall international global value-chain structure of Chinese firms. For example, based on national security concerns and rivalry with China, the U.S. adopts new measures and policies (e.g., the U.S. CHIPS and Science Act) to scrutinize Chinese investments.

In this way, foreign entry by acquisition, serving as a springboard, has increasingly become the primary method by which Chinese enterprises access superior technological knowledge that is otherwise hard to obtain (Anderson et al., 2015; Chen et al., 2021). Acquired enterprises can tap into global reservoirs of knowledge and technology via their local networks (Bertrand & Capron, 2015; Degbey & Pelto, 2013), which is conducive to Chinese acquirers' organizational and technological learning. Although China's cross-border acquisitions have attracted increasing attention, technology-driven acquisitions have still to be fully understood and key aspects, such as the location factors attracting Chinese enterprises' technology-driven acquisitions, are still unclear.

The location strategies of MNEs have been a core issue in international business research (Buckley & Casson, 1976; Dunning, 1977). The logic underpinning each MNE's location choice for different types of international activity, such as marketing, production, distribution, and R&D, is not identical. For technology-driven acquisitions, Chinese firms typically target advanced economies (Anderson et al., 2015; Deng, 2009; Elia & Santangelo, 2017). The rationale is that advanced economies have a relatively more specialized scientific workforce and superior institutional conditions (e.g., IPRP), thus having a comparative advantage in high-tech R&D while also having numerous high-tech MNEs that can serve as learning models (Kedia et al., 2012). However, this view is challenged by Wang et al. (2012), who find that, as Chinese MNEs are more competitive in low-to-medium tech industries, compared with advanced-economy MNEs, they are not necessarily attracted by countries with the highest level of technological development. Rather, they prefer to invest in countries specializing in middle-end technologies, being not too distant from their own technological capabilities. By linking the type of knowledge sought by EMNEs (i.e. technology, R&D, market expertise, management, and operational expertise) to their location choice, Kedia et al. (2012) identify the fact that technology-driven internationalization is directed toward either advanced or other emerging economies. Clearly, the literature does not reach a consensus on the most favored locations for technology-driven acquisitions by Chinese enterprises, partly because - to date - few studies have considered the heterogeneity of advanced and emerging economies in their analysis.

From the aforementioned discussion, China's technology-driven acquisitions seem to be embedded in both home and host institutional environments. Specifically, on the one hand, Chinese enterprises have

difficulties in building up proprietary assets domestically, owing to institutional constraints in the home country (e.g., relatively weak legal frameworks and IPR) (Rui & Yip, 2008), which motivates them to undertake technology-driven acquisitions to leverage benefits from host countries' better institutions. On the other hand, however, technology-driven acquisitions, as a costly investment with a high failure rate, are motivated by the Chinese government's favorable policies and support and substantially engaged in by politically connected firms (Deng, 2009; Du & Boateng, 2015; Li et al., 2019; Luo & Tung, 2018) with the aim of bolstering the home-country innovation portfolio in addition to firms' own competitive advantage. This type of technology-driven acquisition, backed by government influence, is more likely to generate illegitimacy concern and resistance from the governments of host countries with institutional misalignment and thus carries a high risk of being uncompleted (Li et al., 2019). In essence, then, institutional factors – such as host institutional quality and institutional distance - seem to be relevant in determining the location choices of technology-driven acquisitions by Chinese acquirers (de Oliveira & Rottig, 2018; Lawrence et al., 2021; Zhang et al., 2011; Zhou et al., 2016).

#### 2.2. Host-country IPRP and technology-driven acquisitions

The basic tenet of traditional location choice studies is that the location of foreign investment should have clear economic implications (Nielsen et al., 2017). Accordingly, the economic factors of host countries, such as market size, growth, and productivity, labor costs, local infrastructure, and stages of economic development, are extensively regarded as important determinants of foreign investment location choices (Li et al., 2018). The rationale is that these economic factors are easily observable and have a direct and explicit effect on the costs of local operations and on revenues (Nielsen et al., 2017). In general, the more beneficial the local economic indicators, the more attractive the location for foreign firms' investments (e.g., Flores & Aguilera, 2007; Li et al., 2018). For example, the scientific and technological resources in a host country, such as the existence of high-tech clusters and the presence of an abundant scientific workforce, are critical location-specific factors driving MNEs' R&D location choices (Colovic, 2011; Siedschlag et al., 2013)

However, it is widely recognized that economic aspects can only partially explain the location choice, and that host countries' institutional environment is also a critical factor (e.g., Flores & Aguilera, 2007, Li et al., 2018; Nielsen et al., 2017). Chinese firms' acquisitions are likely to be embedded in a host country with strong economic drivers and innovation capacity, but this does not automatically guarantee the successful acquisition of technological assets, as rigid institutions in host countries, particularly IPRP, are likely to inhibit the acquisition and sourcing of technologies (Neuhäusler, 2012). As Yoo and Reimann (2017) identify, EMNEs prefer advanced economies with relatively stronger knowledge-based assets but relatively weaker IPRP when conducting strategic asset-seeking investments. The institutional view suggests that formal and informal institutions set the basic parameters guiding business transactions, and hence countries with the 'right' institutions can minimize transaction costs, facilitate more complex exchanges, and consequently achieve sustainable economic development (Kim & Aguilera, 2016).

Thus, because conducting technology-driven M&As inevitably involves complex transactions between two distant parties, the nature of the 'rules of the game' in host countries is crucial for acquirers. This is a critical aspect for Chinese MNEs as China is characterized by 'institutional voids', with less-developed market-supporting institutions, such as IPRP and financial intermediaries, central to facilitating complex business transactions (Meyer et al., 2009). Also, in the Tech Cold War, Chinese MNEs in strategic industries (e.g., semiconductors) are more likely to encounter new policies in some countries that aim to regulate global value chains for geopolitical gains (Luo & Assche, 2023).

However, Chinese MNEs – as latecomers – have limited organizational capability and internationalization experience (Cuervo-Cazurra, 2012). This may lead them to be more sensitive to regulatory environments related to IPRP when deciding technology-driven M&As. Thus, investigating institutional factors that are often not as readily observable (Nielsen et al., 2017) enhances the understanding of the location choice of Chinese MNEs' technology-driven M&As. A particularly relevant and salient part of the institutional environment is the local IPRP, because this shapes how technology is transferred between actors and contributes to the development of local economic aspects such as innovative resources.

IPRP, which represents a country's emphasis on new knowledge creation and contributes to the national innovation system and to institutional quality, is commonly regarded as a key institutional advantage. As an important institutional arrangement established by the state, IPRP is made up of formal (IP law) and informal (IP enforcement) institutions (Briggs & Brown, 2012; Papageorgiadis & McDonald, Wang, et al., 2020), which determine the extent of protection of intellectual property rights by a country. As the embodiment of 'the rules of the game', an IPRP regime clearly aims to safeguard the creators of intellectual goods (e.g., technological patents) through granting them certain time-limited rights to control the use made of these products (Peng et al., 2017; WIPO, 2004). Because a weak IPRP regime allows rivals to appropriate enterprises' knowledge and innovation with few institutional consequences within that economy (Berry, 2017), a substantial number of countries, acknowledging the role of IPRP in developing institutional quality, attempt to strengthen their IPRP, thereby protecting their own technological advantages. However, the strength of IPRP still varies greatly across economies (Ginarte & Park, 1997; Yang, 2019), even amongst advanced economies.

Because the IPRP institution is established to strive for both optimal protection of the original innovation and optimal technology dissemination and/or transfer (Commonwealth, 2017), many scholars have paid attention to IPRP's impact on innovation and technology transfer. Although several studies illustrate an inverted U-relation between the strength of national IPRP systems and innovation (Ezzeddine & Hammami, 2018; Furukawa, 2010), the dominant view is the conducive role of IPRP in stimulating technological innovation (e.g., Ginarte & Park, 1997; Kanwar & Evesnson, 2003; Shu et al., 2015). The underlying reasoning behind this is that IPRP's central role is to provide an incentive mechanism for innovation and to encourage the production of new knowledge (Ginarte & Park, 1997; Kanwar & Evesnson, 2003). Similarly, the studies on IPRP's effect on technology transfer have also had inconsistent results. The abundant literature uncovers the positive role of strong IPRP in promoting technology transfer (e.g., Branstetter et al., 2006; Mansfield, 1994; Wakasugi & Ito, 2009; Yang, 2012), while some scholars hold an opposing view and identify the potentially hazardous role of strengthened IPRP in the diffusion and transfer of technology because of the excess monopoly power given to inventors (Gangopadhyay & Mondal, 2012; Neuhäusler, 2012).

Compared with the attention paid by many scholars to IPRP's effects on innovation and technology transfer, its impact on foreign direct investments receives limited attention. However, as Yang and Sonmez (2013) highlight, there are indispensable links between patent systems and international business. Actually, IPRP in host countries is an essential factor affecting firm internationalization and acquisitions, for example by ensuring the effectiveness and efficiency of the market mechanism by reducing transaction costs and risks, and by protecting IP assets (Coeurderoy & Murray, 2008; Khoury & Peng, 2011; Mansfield, 1994; Papageorgiadis et al., 2020). The literature is also limited on the context of advanced-market MNEs (Coeurderoy & Murray, 2008; Hasan et al., 2017; Mansfield, 1994; Papageorgiadis et al., 2020) and very little research explores this topic in the EMNE context (Papageorgiadis, Xu, & Alexiou, 2019; Yamakawa, Peng, & Deeds, 2008).

Specifically, studies concerned with IPRP's effects on overseas technology-driven M&As are very limited and there is no univocal evidence. In general, most scholars hold a positive view and identify that countries with significant IPRP attract more foreign investments and acquisitions (e.g., Alimov & Officer, 2017; Coeurderoy & Murray, 2008; Estrin, Meyer, & Pelletier, 2018; Hasan et al., 2017; Khoury & Peng, 2011; Mansfield, 1994; Lee & Mansfield, 1996). For example, Marco and Rausser (2008) illustrate that, when firms have overlapping technologies, acquisitions in plant biotechnology are facilitated by the enforcement of patent rights. The underlying reasoning is that a host country with stronger IPRP can protect IP assets and prevent the uncontrolled diffusion of investing firms' knowledge (Estrin et al., 2018; Yamakawa et al., 2008; Yang & Sonmez, 2013). Also, a clear, consistent, and comprehensive IPRP institution promotes MNEs' successful interpretation of IPRP policies (Papageorgiadis et al., 2020; Yang & Sonmez, 2013). When MNEs internationalize in host countries with weak IPRP regimes, institutional void will cause an increase in transaction costs and risks when using legal means to defend IPR (Estrin et al., 2018).

The negative view, uncovered more in studies based on EMNEs, suggests that - due to restricted access to knowledge assets in host economies with strong IPRP, as well as EMNEs' limited capability and strong willingness to acquire technological assets quickly – firms prefer to invest in host economies with relatively weak IPRP to obtain easy access to local knowledge, instead of investing in economies with strong IPRP regimes (Papageorgiadis et al., 2019; Yoo & Reimann, 2017). This negative role of strong IPRP in relation to foreign investments applies not only to EMNEs, but also to advanced-economy MNEs such as those in the U.S. (Papageorgiadis et al., 2020). This negative view of strong IPRP seems to challenge the Springboard Perspective which contends that EMNEs, particularly Chinese ones, target advanced economies to conduct M&As so as to access local advanced technologies and catch up with Western giants by taking advantage of superior local innovation institutions (Deng, 2009; Luo & Tung, 2018). From this perspective, host countries with strong IPRP are expected to attract new ventures from emerging countries for internationalization. This notion is supported by the empirical studies of Yamakawa et al. (2008) and Estrin et al. (2018). However, these inconsistent findings result in a limited understanding of how host-country IPRP strength influences Chinese technology-driven acquisitions.

The literature's inconsistency might be generated for two reasons. First, most studies focus on the overall flow or stock of foreign investments (e.g., Estrin et al., 2018; Khoury & Peng, 2011; Papageorgiadis et al., 2019; Yoo & Reimann, 2017) and do not differentiate between different modes, e.g., greenfield vs. acquisitions. As Alon et al. (2020) state, the influence of external institutions on different entry modes is divergent. Compared with other types of internationalization, cross-border M&A is more conducive to the acquisition and transfer of knowledge (Dau, 2018), which seems to be subject more to IPRP institutions in host economies. Second, the literature does not account for different investment motivations, such as technology-seeking, market-seeking, resource-seeking, or labor-seeking. IPRP has been set up to protect intellectual assets; hence it may be more relevant and influential in technology-seeking acquisitions (Alimov & Officer, 2017; Hasan et al., 2017).

## 3. Hypotheses development

3.1. Impact of host-country IPRP on Chinese firms' technology-driven acausitions

The institutional-based view (North, 1990) suggests that firms make rational strategic decisions under the established institutional environment (Peng et al., 2008) and that institutional quality shapes firms' behavior and strategic choices, including internationalization (Peng et al., 2008; Tang & Buckley, 2020). Because of their multinational nature, MNEs have to suffer institutional influences both at home and in the host country (Kostova & Roth, 2002). The efficient functioning of host-country institutions has been identified as an essential determinant

in attracting foreign investments by MNEs (Brouthers et al., 2008). This is because well-developed and strong institutions provide a stable and low transaction-cost environment and create a more level playing field between local and foreign competitors (Meyer et al., 2009). Similar to other institutional arrangements, strong IPRP institutions lower the transaction costs of IP owners engaging with IP institutions, reduce uncertainties, and are therefore important predictors of foreign direct investment potential (Hagedoorn et al., 2005; Khoury & Peng, 2011; Lee & Mansfield, 1996). In this sense, MNEs are more likely to conduct M&As in a country with well-developed IPRP.

This applies particularly to Chinese MNEs with technology-seeking strategies. As the institutional escapism view suggests, relatively weak institutions and high institutional costs at home motivate Chinese enterprises to invest overseas in pursuit of more efficient institutions and advanced technologies (Witt & Lewin, 2007; Yamakawa et al., 2008). Chinese IPRP institutional conditions are not conducive to the effective exploitation and exploration of IP assets by Chinese enterprises in a domestic setting (Deng, 2009; Rui & Yip, 2008). In essence, Chinese enterprises seem to be more willing to conduct technology-driven acquisitions in countries with well-established IPRP institutions.

Specifically, well-developed IPRP institutions are effective ex-ante prevention and ex-post punishment mechanisms in mitigating transaction costs and risks; host countries with strong IPRP, therefore, are seen as more protective of IP assets and IP-owning enterprises. Strong institutions in host countries, therefore, can enable Chinese investors to defend, exploit, and profit successfully from the technological assets that they obtain and develop from their local acquired firms (Papageorgiadis et al., 2019; Yang, 2012), thereby augmenting their innovation competence and achieving springboard strategy. In addition, countries with strong IPRP regimes often present clear, comprehensive, and coherent legal institutions that not only make it easier for Chinese investors to interpret local laws, but also ensure an effective, fair, and transparent institutional environment concerning IP (Hartwell & Urban, 2021; Yang, 2019), one that potentially reduces the investment risks of technology-driven acquisitions. Conversely, in a country with significant IPRP institutional voids, a major source of information asymmetries, Chinese firms may be led into spending excessive resources and time on collecting information for acquisition targets and IP assets, increasing potential transaction costs and risks (Papageorgiadis et al., 2020). In short, host countries with adequate IPRP will attract more technology-driven acquisitions from Chinese firms.

The choice of foreign investment location is determined by an investing firm's interaction with the host institutional context (Estrin et al., 2018), as the location decision for acquisitions depends on the interaction of a firm's specific advantages (also referred to as ownership advantages) (Dunning & Lundan, 2008) with the specific locational advantages at the host locations of acquisition targets (Papageorgiadis et al., 2019).

Implementing, and benefiting from, technology-driven acquisitions to achieve springboard strategy requires a critical capability and business intelligence in Chinese MNEs (Li, 2010; Li et al., 2022; Luo & Tung, 2018). This is particularly true when the host country has stringent IPRP institutions, as institutions that are too stringent will generate more non-predictable challenges and a greater risk of major disruption from a potential IP infringement lawsuit from local firms (Papageorgiadis et al., 2019), providing more challenging and sophisticated IP environments. This is more apparent in the Tech Cold War. For example, some Western countries with stringent IPRP complain that China is not meeting its international obligations to protect IP; even the public in these countries sensationalizes the "China threat" (Fang & Chimenson, 2017) and challenges Chinese acquirers' legitimacy to deter technology-seeking acquisitions by Chinese firms and transfer technological assets post-acquisition. Because Chinese MNEs are, in general, still in the early stages of their "internationalization process" (Li, 2007), and have their main operations in their home country due to the large market in China, their organizational structures, practices, and capabilities are

imperceptibly influenced by relatively weak home institutions with weak IPRP regimes (Papageorgiadis et al., 2019; Peng et al., 2017; Shu et al., 2015). In essence, then, Chinese acquirers are more likely to have limited firm-specific capabilities (e.g., learning capability, patent capability, competitive intelligence involving patents) and managerial insights within well-developed institutions. This leads to their struggling to overcome barriers stemming from too tight IPRP institutions and to their leveraging and controlling technological knowledge from acquired firms in host countries (Papageorgiadis et al., 2019; Tang, 2021; Yang, 2012). Also, Chinese MNEs have less experiential knowledge and international experience in both general and host country-specific forms (Li, 2007; Peng, 2012), leading to difficulty in managing significant institutional idiosyncrasies, and a risk of vulnerability in host institutions with too stringent IPRP, when acquiring advanced technological assets. Clearly, the limited organizational capabilities of Chinese MNEs are likely to tarnish both the process and the outcome of springboard endeavors in very stringent IPRP institutions. In other words, as a typical springboard internationalization, technology-driven acquisitions in a host country with extremely strong IPRP are an entrepreneurial attempt; however, its implementation carries a high potential risk and a high failure rate for Chinese MNEs. In this situation, Chinese MNEs' relatively weak organizational learning and capabilities are more likely to engender strong organizational inertia and thus lead them to be less willing to conduct technology-driven acquisitions in stringent IPRP institutions.

Organizational routines are the basis of organizational knowledge assets and development (Nelson & Winter, 1984) and a vital component of organizational learning (Feldman & Pentland, 2003). Routine-based learning and competitive advantage is normally location-bound and may not apply in a stronger IPRP environment. Prior research accordingly identifies that Chinese MNEs have comparative advantages in operating in host countries with relatively less sophisticated institutional environments (Estrin et al., 2018; Papageorgiadis et al., 2019) because they may effectively apply routine-based competitive advantage in institutionally adjacent host countries (Xu & Shenkar, 2002) and may possess managerial knowledge and capabilities in operating a relatively less consistent or complete institutional environment (Estrin et al., 2018). In this sense, organizational inertia - induced by routine-based learning - will motivate Chinese firms to avoid host countries with significant IP institutional challenges and to conduct M&As at a modest IPRP level, since host countries with such levels can be more predictable for Chinese firms and present a lower risk of major disruption in managing and deploying technological assets in local acquired firms. Thus, from the downside of stronger IPRP, the effectiveness of organizational learning and capability is a boundary condition for Chinese firms engaging in technology-driven acquisitions.

Given these arguments, we posit an inverted U-shaped relationship between the strength of host-country IPRP and the quantity of Chinese firms' technology-driven acquisitions. From the lowest level to a turning point, the marginal effect of increasing institutional quality rises consistently with increases in the strength of host-country IPRP. The increasing quality of IPRP institutions ensures successful implementation in both pre-acquisition and post-acquisition phases. More specifically, such institutions would allow Chinese firms to deploy freely the proprietary assets that they legally acquire from local acquired firms, and to appropriate successfully returns from their cross-border R&D investments (Alimov & Officer, 2017; Coeurderoy & Murray, 2008; Yamakawa et al., 2008). Conversely, the effectiveness of routine-based organizational learning and capability gradually decreases with increases in the strength of host-country IPRP. In other words, the negative impact induced by Chinese acquirers' routine-based organizational learning, such as organizational inertia, increases slightly when the strength of host-country IPRP increases to the turning point. The influence of the increasing quality of IPRP institutions seems to be much stronger and more apparent than that of the decrease in the effectiveness of organizational learning and capabilities. In this situation, Chinese

firms can not only rely on the appropriate host-country IPRP institution to ensure the acquisition process; they also possess certain capabilities to leverage and develop technological assets from acquired subsidiaries in a modest-level IPRP institution. Given this, the quantity of Chinese firms' technology-driven acquisitions will improve with the increased strength of host-country IPRP from the lowest level to the turning point.

From the turning point to the highest level of host-country IPRP strength, although host-country IPRP institutional quality is still a necessary condition impacting on Chinese firms, it is not a sufficient one. This is because the effectiveness of Chinese acquirers' routine-based organizational learning and capabilities decreases severely from the turning point to the highest level of IPRP strength. In other words, in a host country with too stringent IPRP, Chinese firms do not possess sufficient capabilities to deal with more challenging and sophisticated IP institutional environments, nor to manage and acquire technological assets from acquired firms (Tang, 2021). In essence, then, Chinese firms are less willing to conduct technology-driven acquisitions that are already costly and risky in a host country with IPRP institutions that are too divergent; instead, they desire the institutional conditions of a predictably weak appropriability regime for such acquisitions, as their organizational capabilities are designed to operate in such a context. Given this, the quantity of Chinese firms' technology-driven acquisitions will decrease with increases in the strength of host-country IPRP from the turning point to the highest level.

**H1**. : There is an inverted U-shaped relationship between a host country's IPRP strength and the quantity of Chinese firms' technology-driven acquisitions.

#### 3.2. The moderating effect of economic and political distance

Economic distance is defined, and typically measured, as the sum of the differences in economic development and macroeconomic characteristics between countries (Berry et al., 2010). In the Tech Cold War, China and Chinese firms intend to augment their technological and innovation assets (e.g., chip manufacturing) rapidly to compete in the global market and to bridge gaps with Western countries, thereby achieving China's national high-tech ambitions (e.g., Made in China 2025 Strategy). This leads Chinese firms to invest in countries that are advanced and economically distant from China, aiming to leverage overseas learning (Anderson et al., 2015; Gaffney et al., 2016). In general, these more advanced countries have a better business environment, advocate market mechanisms to guide business practice, and have little government involvement in business activities (Deng, 2009). However, the organizational capabilities of Chinese firms are shaped by home-country operations that rely mostly on home-country specific advantages, such as favorable government policies (Cuervo-Cazurra, 2012), and are grounded in a relatively weak market-oriented business environment involving state capitalism (Su et al., 2021) and guanxi, or even bribery (Tung, 2016). Therefore, it is difficult for Chinese firms to adapt to market-oriented mechanisms and to the fierce market competition in a host country with a superior economic distance. This eventually engenders more organizational inertia and lowers their willingness and commitment to engage in technology-driven acquisitions even if the host country has better developed IPRP to secure the technological assets acquired. Thus, in the context of more advanced host countries, we see, on one side, superior economic distance exacerbating the decrease in Chinese firms' effectiveness in managing technological assets, and - on the other side - the defensive behavior fueling the Tech Cold War.

In terms of the attractiveness of increasing institutional quality, we assume that economic distance can substitute for the effect of host-country IPRP strength. As they are motivated to source technological assets to catch up with Western giants, Chinese MNEs will be eager (e.g., they will pay higher premiums) to acquire local firms in advanced countries with greater economic distance, overlooking other conditions

such as IPRP and its effects. This is because such hosts often have superior business environments with more market opportunities and abundant strategic resources (Zheng et al., 2016), which may help Chinese MNEs to strengthen their firm-specific advantages. This is highly pertinent to the Tech Cold War where Chinese MNEs are under much pressure to gain better innovation competence quickly to catch up with the world's leading companies. In short, other conditions being equal, when a host country's IPRP is strong enough to protect IP assets, Chinese firms' technology-driven acquisitions may be more affected by economic distance (Yoo & Reimann, 2017). This applies particularly in the Tech Cold War, where China intends to narrow the economic gap with the U.S., while the U.S. intends to increase its economic distance from China. Thus, a greater economic distance reduces the effects of increasing IPRP institutional quality, rendering the inverted U-shaped relationship less pronounced. Combining the above effects, we propose that the positive and negative relationship between the strength of a host country's IPRP and the quantity of Chinese firms' technology-driven acquisitions becomes less pronounced when investing in a host country with greater economic distance.

**H2a.** Economic distance weakens the inverted U-shaped relationship between a host country's IPRP strength and the quantity of Chinese firms' technology-driven acquisitions.

Political distance represents and measures differences in political stability, democracy, and trade-bloc membership across countries (Berry et al., 2010; Salomon & Wu, 2012). It encompasses the dissimilarity and misalignment in political orientations and governance philosophies, which causes political volatility and conflicts between countries (Jiang et al., 2018). The impact of political distance is accentuated if there are also tensions between countries. A significant ideological divide, such as that between the U.S. and China, may trigger geopolitical uncertainty, heightening trade and technological conflicts and consequently leading to a Tech Cold War. In contrast, a similar political system can foster a certain level of trust and mutual understanding and facilitate cooperation, even in times of dispute. For example, the U.S. and Japan share democratic political systems, which helped to prevent trade and technological conflicts in the 1980 s from escalating into a larger political or tech war (Katada, 1997).

Political distance not only affects interstate relations, but also shapes MNEs' behaviors. According to institutional theory, the degree of dissimilarity between political institutions in home and host countries determines the level of uncertainty and risk for MNEs when engaging with local political agents and reduces the probability of survival (Berry et al., 2010). This is particularly true when Chinese MNEs conduct M&As. In the current era of rising nationalism and political hostilities resulting from the Tech Cold War, China's M&As in politically distant countries are more likely to encounter political concern and resistance in local contexts (de Oliveira & Rottig, 2018; Li et al., 2019; Liou et al., 2021; Witt et al., 2021). For example, in 2019, the Committee on Foreign Investment in the United States (CFIUS) launched a national security review of China's ByteDance and concluded that its acquisition of Musical.ly in 2017 did not receive permission from the U.S. government. Put simply, the greater the differences in home and host country political contexts, the more difficult it is for Chinese acquirers to understand and assess the host's political institutions and the more challenges and legitimacy doubts the host poses for China's M&As, particularly technology-driven M&As (Cuervo-Cazurra & Genc, 2008; White et al., 2018). In essence, then, even though a host country has strong IPRP institutional quality, Chinese acquirers may be hesitant to conduct technology-driven M&As, or may face many barriers and risks in completing M&As because of the high political distance from the host. Clearly, increased political distance may cause political risks and hazards in China's technology-driven M&As and may weaken the effects and the attractiveness of enhanced IPRP institutional quality. Political influence is more apparent and lies at the core of national competition in the Tech Cold War.

Chinese acquirers have to navigate the legitimacy issues and increasing uncertainty derived from increasing political distance in host countries when undertaking technology-driven M&As, especially in the Tech Cold War (de Oliveira & Rottig, 2018; Li et al., 2019). This requires them to have strong knowledge assets and the capability to cope with these hazards and to counteract political pressures. However, Chinese firms have capabilities established in less-developed home institutions with a special political system, and this limits their ability to overcome political hazards and consequently to manage and exploit sophisticated technological knowledge in countries with significant political distance (Chen et al., 2021; Su et al., 2021). For example, many Chinese acquirers do not have the experience to manage a highly skilled workforce effectively in politically distant countries. This is also highlighted by Liou et al. (2021), who identify that, for successful completion of - and to gain benefits from - M&As in advanced economies, EMNEs need to adopt non-market strategies, such as corporate political activities in host economies, to mitigate the potential risk derived from the substantial political differences between their home emerging economy and the host developed economy. However, due to the high political distance, EMNEs have few insights into non-market strategies in very different political institutions, while the non-market strategies they employ are more likely to be ineffective in host countries. Hasija et al. (2020) note that EMNEs will benefit more from post-acquisition when home and host countries have closer national political interests, as such acquisitions allow acquirers to have more control over returns from acquired assets.

Clearly, constrained by the capabilities formed in the home country, it is difficult for Chinese acquirers, particularly in the Tech Cold War, to overcome political risks and integrate knowledge in a host country with great political distance from China (Jiang et al., 2018). This may reduce their willingness to undertake technology-driven acquisitions even though this host country has better IPRP institutions. In other words, a larger home-host political distance can strengthen the ineffectiveness of Chinese firms' organizational capabilities in hosts with stronger IPRP and can lead them to be much less willing to engage in technology-driven acquisitions. Thus, it is suggested that the inverted U-shaped relationship becomes less pronounced when the political distance between host and home is greater.

**H2b.** Political distance weakens the inverted U-shaped relationship between a host country's IPRP strength and the quantity of Chinese firms' technology-driven acquisitions.

# 4. Research methodology

## 4.1. Data

Our empirical analysis is based on panel data of 377 country/year observations of technology-driven acquisitions of firms publicly listed in China from 2008 to 2020 (13 years in total). The acquisition data are extracted from the Bvd-Zephyr database, supplemented by the Wind database. The Bvd-Zephyr database contains rich information on M&As - such as deal status, deal value, method of payment, date of announcement, size of stake acquired, acquirer, and target firm's characteristics (e.g., name, ownership, location, and type of industry) gathered from a variety of reputable sources. This database has been used widely in M&A studies (e.g., Dikova & Sahib, 2013; Erel et al., 2015; Dong et al., 2019; Lyubov, 2019; Muehlfeld et al. (2012)). Our target samples are technology-driven M&As by Chinese listed firms from 2008 to 2020. We use the Wind database to obtain the stock code and information of Chinese publicly listed firms, which makes it convenient for us to find the M&A announcements and identify acquisition samples that meet the technology-seeking purpose. In order to ensure that the sample matches the research focus (i.e. technology-driven acquisitions), the sample selection is based on the following criteria: (1) the cross-border acquisition announcement published by the acquirer must clearly point out that the aim is to seek and acquire advanced

technologies, such as patents (Chen et al., 2021); (2) samples of equity increase and related party transactions are dropped, along with acquisitions with incomplete information; (3) samples in Hong Kong or Macao for reversing investments are excluded.

Following these criteria, we finally obtain 319 cross-border technology-driven acquisitions from 225 Chinese listed firms across 29 host countries (see Table 1). Of these, 287 are successfully completed and 32 (10.03% of the total sample) are withdrawn. Consistent with the literature on EMNEs, indicating that strategic-asset seeking internationalization by EMNEs generally ventures into advanced countries (Athreye et al., 2021; Fjellström et al., 2023), our sample illustrates that Chinese firms prefer to conduct technology-driven acquisitions in advanced countries (98.43% in the total number of samples) and that the top three host countries are the U.S. (96 observations), Germany (52 observations), and Italy (28 observations).

We choose the period between 2008 and 2020 because the global economic crisis occurred in 2008 and, after this, Chinese firms conducted a large number of M&As, particularly in advanced economies (Athreye et al., 2021). As illustrated in Fig. 1, the number of China's technology-driven acquisitions across the world and in major destination countries (i.e. the U.S. Germany, and Italy) steadily increased between 2008 and 2016. From 2008-2020, China experienced three phases of technology-driven acquisitions: initial period (2008-2012), period of prosperity (2013–2016), and period of recession (2017–2020). In the initial period, due to the impact of the financial crisis in 2008, many advanced-country firms were finding it difficult to survive and even faced the risk of bankruptcy, providing an excellent opportunity for Chinese firms to acquire high-tech assets. This led to a period of constant growth in the quantity of Chinese technology-driven acquisitions. In the period of prosperity, motivated by Chinese government policies, such as "Go Global" and the "Belt and Road Initiative", the number of M&As increased sharply. In the period of recession, there was the emergence of global decoupling, in both business and geopolitical terms, especially between the U.S. and China, including the Tech Cold War (Witt, 2019b; Witt et al., 2021). This has created barriers to Chinese acquirers undertaking technology-driven acquisitions and resulted in a significant decline in the quantity of China's technology-driven acquisitions.

Because of our research purpose, in investigating the relationship between host countries' IPRP and the quantity of technology-driven acquisitions on a macro (national) level (country/year observations), we collect the empirical samples for each of 29 countries over 13 years and the final sampling is a dataset of panel data with 377 country-year observations.

#### 4.2. Variables and measurements

## 4.2.1. Dependent variables

Following studies by Dikova et al. (2019) and Deng and Yang (2015), the dependent variable - the quantity of Chinese firms' technology-driven acquisitions (Num) - is measured as the number of annual acquisitions – with the aim of seeking and acquiring technologies - that Chinese listed firms conducted in each host country for the period 2008-2020. Previous literature on cross-border M&As uses the aggregate amount of foreign investment flows to capture the involvement of a country's foreign investment or takeovers. This approach encounters a problem in that M&As of an extreme size (too big or too small) manipulate influences or significantly change this measure (Deng & Yang, 2015). For example, ChemChina bought Pirelli in a US\$7.7 billion deal, while the Chinese construction equipment manufacturer, Zoomlion, acquired Compagnia Italiana Forme Acciaio for around US\$421.9 million. We choose to use the number of acquisitions - rather than the volume (aggregate amount) of M&As for each host market - as the dependent variable so that each deal could be equally and fairly treated. Also, in recent years, an increasing number of scholars have confirmed that adopting the number of investment projects is an effective alternative to assessing cross-border M&As by EMNEs (Deng & Yang, 2015;

**Table 1**Sample distribution by host country.

Host country	No.	Host country	No.	Host country	No.	Host country	No.	Host country	No.
Belgium	1	Indonesia	1	Denmark	3	Israel	9	Australia	13
Bulgaria	1	Malaysia	1	Austria	6	Singapore	9	United Kingdom	20
Brazil	1	Norway	1	Finland	6	France	10	Italy	28
Croatia	1	Thailand	1	Netherlands	7	South Korea	10	Germany	52
Czech	1	Luxembourg	2	Japan	7	Canada	11	United States	96
India	1	Poland	2	Sweden	7	Switzerland	11	Sum	319

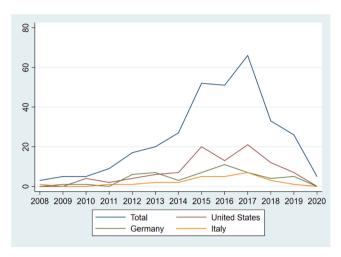


Fig. 1. No. of China's technology-driven acquisitions in the world and in major countries (2008–2020).

#### Dikova et al., 2019).

## 4.2.2. Independent variables

Following the study by Papageorgiadis, and McDonald, Wang, et al. (2020), we use two indicators (i.e. IP law and IP enforcement) to measure a host country's intellectual property rights protection (IPRP) strength. A country's IPR institutions include formal and informal systems. The IP law (patent protection) is used in the index of Park (2008) as a proxy for formal IPRP and this is extensively employed to measure IPRP (Berry, 2017; Smeets & de Vaal, 2016). It covers five criteria: coverage, membership of international treaties, restrictions, enforcement mechanisms, and duration of protection. The second indicator – IP enforcement –represents the effectiveness of a country's intellectual property rights enforcement (Briggs & Brown, 2012). We use the level of piracy in the IP sector (copyright piracy) as a proxy for IP enforcement. As a law enforcement measure for copyright strengths, copyright enforcement can somehow reflect the informal legal aspects of IPR systems (Papageorgiadis & Sofka, 2020). Combining Park's indices and copyright piracy can better reflect and assess the strength of a country's formal and informal IPRP. Both indicators are sourced from the Property Rights Alliance Report which has updated data for Park's indices and copyright piracy until 2020. This report publishes the data of these two indicators, ranging from 0 to 10, with greater values indicating stronger IPR protection. We use the mean of the sum of the two indicators to measure a host country's IPRP strength, and the product of the two indicators as one of the robustness tests. The distribution of average IPRP across the

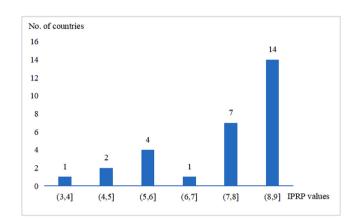


Fig. 2. Distribution of average IPRP across the 29 countries from 2008 to 2020.

countries is illustrated in Fig. 2.3

## 4.2.3. Moderating variables

The measurements for economic distance are adopted from the study by Berry et al. (2010), sourced from World Development Indicators. *Economic distance (EcoDist)* includes three indicators of economic differences between China and the host country: (1) GDP per capita; (2) GDP deflator; (3) exports and imports of goods and services. We adopt the Mahalanobis method to calculate economic distance. To measure political distance, we use the CHECKS index, drawn from the Database of Political Institutions, to reflect the overall level of political volatility within a country (Salomon & Wu, 2012). *Political distance (PolDist)* is calculated as the absolute value of the difference in political volatility between China and the host country. For these two moderating variables, the higher the value, the larger the distance.

## 4.2.4. Control variables

In our empirical analysis, we also control for seven country-level factors that potentially influence the quantity of Chinese firms' technology-driven acquisitions as follows. (1) & (2) Geographic distance (GeoDist) and Cultural distance (CulDist): Geographic and cultural distance are recognized as important factors affecting MNEs' international investment mode and location (Berry et al., 2010; Zaheer et al., 2012). GeoDist measures the log of great circle distance between two countries, according to the coordinates of the geographic center of the countries (Berry et al., 2010). To measure cultural distance, using Hofstede's dimensions of cultural distance – uncertainty avoidance, power distance, individualism, and masculinity (Hofstede et al., 2010) – we apply Kogut and Singh (1988). (3) Exchange rate (ExcRate, source: World Development

<sup>&</sup>lt;sup>3</sup> The segmented distribution of average IPRP across the countries: the range of (3,6] includes Indonesia, Thailand, Croatia, India, Malaysia, Bulgaria, Brazil; the range of (6,8] includes Poland, Israel, South Korea, Czech, Italy, France, Singapore, Norway; the range of (8,9] includes Switzerland, Luxembourg, Canada, Austria, Australia, United Kingdom, Belgium, Sweden, Germany, Netherlands, Finland, Denmark, Japan, United States.

*Indicators*): The currency fluctuation between home and host countries is recognized as having an impact on firms' foreign investment (Tolentino, 2010). (4) Local tax burden (TaxBur, source: Index of Economic Freedom): The increase in the tax burden in the host country will lead to a rise in transaction costs (Xie et al., 2017), which are eventually detrimental to MNEs' acquisitions in that country. (5) & (6) Financial freedom (FinFre) and Business freedom (BusFre): These two variables, reflecting the degree of regulation affecting cash flow and business, imposed by a host country, are sourced from the Index of Economic Freedom. (7) Time effect (TimEff): From the aforementioned discussion, based on Fig. 1, Chinese acquirers experience the dynamics of change (e.g., 2008 financial crisis, emergence of the Tech Cold War, and global decoupling) in the investment climate when undertaking M&As. Clearly, different time periods may potentially affect the quantity of China's technology-driven acquisitions (Witt et al., 2021). Accordingly, we divide the investigated time frame into three periods: 2008-2012, 2013–2016, and 2017–2020, assigning values of 1, 2, and 3 respectively.

#### 4.3. Estimation method

Due to our dependent variable being a count variable (ranging from zero to a certain positive number), it is appropriate to adopt Poisson or a negative binomial regression model (Deng & Yang, 2015). However, Poisson regression has rigid requirements for data distribution, stipulating that the mean and variance must be equal, which we call equi-dispersion. Our dependent variable is obviously over-dispersed and negative binomial regression admits the variance in the rate of the underlying process across observations, according to a gamma distribution (Hilbe, 2007). So we initially consider this regression model to be preferable for analyzing data. Considering that there are excess zero counts in our dependent variable (Buckley & Casson, 1976), we apply the Vuong test (Vuong, 1989) to decide whether to use standard negative binomial regression or zero-inflated negative binomial regression. The results support the former. Vuong Z-scores are -2.28 (less than -1.96) and not significant (p > 0.1). Thus we finally adopt standard negative binomial regression to analyze data. Furthermore, in order to mitigate the potential endogeneity with the dependent variable, we lag all the explanatory variables, including independent variables, moderator variables, and control variables, by one year.

# 5. Empirical results

Table 2 reports the descriptive statistics and correlation coefficients of the variables. Only a few variables in the correlation matrix are highly correlated (e.g., IPRP and BusFre,  $r=0.708,\ p<0.001;$  CulDist and TaxBur,  $r=-0.663,\ p<0.001),$  while others are low. Meanwhile, before conducting a negative binomial regression analysis, we conduct a variance inflation factor (VIF) test and confirm that the multicollinearity problem in our model is not serious (the mean VIF value is 2.13 and less than 10).

#### 5.1. Main results

Table 3 shows the six standard negative binomial regression models used to examine our hypotheses. In order to justify the inverted U-shaped relationship of Hypothesis 1 fully, we adopt the three test procedures proposed by Haans et al. (2016). First, the coefficient of quadratic term is significantly positive or negative. Model 3 shows that IPRP presents a positive and statistically significant effect on NUM ( $\beta=10.464$ , p<0.05), while the coefficient between IPRP-squared and NUM is negative and significant ( $\beta=-0.744$ , p<0.01). Second, the slope must be sufficiently steep at both ends of the data range. After calculation, the results reveal that the slope at the lowest end is statistically significantly positive (dy/dx=6.742, p<0.05) and the slope at the highest end is statistically significantly negative (dy/dx=-3.120, p<0.01). Finally, the turning point needs to be located well within the

data range; thus, we adopt the Fieller method to check this. The results demonstrate that the turning point is 7.029 and the 95% confidence interval of the turning point (4.685, 7.623) is located well within the data range of the independent variable (2.5, 9.125). Thus, our results capture a complete inverted U-shaped relationship (see Fig. 3), confirming Hypothesis 1.

Hypothesis 2a. proposes that economic distance weakens the inverted U-shaped relationship of Hypothesis 1. We also use the procedure proposed by Haans et al. (2016) to test whether the relationship exists or not. Model 4 (see Table 3) shows that economic distance has a negative and significant moderating effect on the impact of host-country IPRP on the quantity of Chinese firms' technology-driven acquisitions ( $\beta = -0.556$ , p < 0.01) and a significantly positive moderating effect on IPRP-squared ( $\beta = 0.042$ , p < 0.01). Model 6 (see Table 3) also confirms this point. Thus, the result supports the inverted U-shaped relationship and the curvature is flatter at a high economic distance (as shown in Fig. 4). Furthermore, we compute the shift of the turning point:  $11.916 \times 0.042 \cdot (-0.809) \times (-0.556) = 0.051$ , but there is no significant evidence to support the shift (p = 0.493), thereby providing full support for Hypothesis 2a. Political distance has an insignificant ( $\beta = -0.046$ , p > 0.10) moderating effect on the relationship between host-country IPRP and the quantity of Chinese firms' technology-driven acquisitions, and this is the same with Model 6. Hypothesis 2b, therefore, is not empirically confirmed.

#### 5.2. Robustness tests

To assess the robustness of our empirical results, we run a number of additional empirical analyses by using the alternative measurement method and by adopting the sub-samples. First, we employ the alternative method to measure IPRP to conduct three robustness tests (see Table 4). In the main results, we use the mean of the sum of the IP law and IP enforcement to measure a host country's IPRP. In the first robustness test, we apply the product of the two indicators. The results, shown in Table 4 (Models 1-4), are highly consistent with our primary analyses. Further, the Property Rights Alliance Report publishes overall IPRP scores, including protection of intellectual property rights (sourced from the World Economic Forum), patent protection, and copyright piracy. In the second robustness test, we use the overall scores of this report to measure IPRP in order to test the hypotheses. The results are shown in Table 4 (Models 5-8) and support our primary empirical results. Finally, because the Park (2008) index is an authoritative method of measuring IP law (Papageorgiadis et al., 2020), and it is difficult to find an alternative measurement, we seek an alternative measurement of the other indicator of IPRP – IP enforcement. In the third robustness test, we use patent enforcement, derived from scores of the overall Patent Enforcement Index, published in the study by Papageorgiadis and Sofka (2020), to measure IP enforcement. We apply linear interpolation to supplement the missing data of specific years<sup>4</sup> in this test. The results, illustrated in Table 4 (Models 9–12), also confirm our primary results.

Second, we conduct three additional robustness tests by using the sub-samples (see Table 5). Specifically, the target ownership range in our M&A samples is 1–100%. A total of 28.2% of the sampled M&A deals has a less than 50% share (29 samples with acquisition equity from 2% to 10%, 26 samples with acquisition equity from 11% to 20%, and 35 samples with acquisition equity from 21% to 50%), while 71.8% of the samples entail a share of more than 50%, meaning absolute control. Thus, we exclude the samples with target ownership of less than 51% to test the same model. The results (see Table 5, Models 1–4) are consistent with our primary results. Moreover, an overseas acquisition in industries sensitive to political concerns and national security has a high possibility

 $<sup>^4</sup>$  There are only 338 samples because of the missing data in three countries (Luxembourg, Bulgaria, and Croatia).

 Table 2

 Descriptive statistics and correlation matrix.

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Num	1										
2. IPRP	0.257***	1									
3. EcoDist	-0.070	0.041	1								
4. PolDist	0.058	0.103**	-0.107**	1							
5. GeoDist	0.144***	0.224***	0.115**	0.303***	1						
6. CulDist	0.148***	0.552***	-0.022	0.207***	0.368***	1					
7. ExcRate	0.201***	0.505***	0.154***	0.073	0.492***	0.164***	1				
8. TaxBur	-0.051	-0.517***	0.007	-0.317***	-0.317***	-0.663***	-0.315***	1			
9. FinFre	0.099*	0.627***	0.120**	0.051	0.290***	0.504***	0.414***	-0.352***	1		
10. BusFre	0.170***	0.708***	0.110**	-0.010	-0.055	0.467***	0.377***	-0.374***	0.583***	1	
11. TimEff	0.167***	0.118**	-0.048	-0.006	0.001	-0.001	-0.108**	0.070	0.109**	-0.041	1
Mean	0.846	7.266	9.943	3.180	8.791	2.747	4.326	65.720	68.329	78.977	1.923
S.D.	2.215	1.481	7.033	1.537	0.527	1.259	3.580	14.034	13.571	14.179	0.830
Min	0	2.5	0.449	0	7.064	0.461	0.001	32.7	30	35.5	1
Max	21	9.125	35.47	16	9.755	5.063	15.22	94	90	99.9	3

Note: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

**Table 3**Standard negative binomial regression results

Variables	(1)	(2)	(3)	(4)	(5)	(6)
EcoDist	0.020	0.016	0.034	-2.268***	0.037	-2.208**
	(0.041)	(0.039)	(0.044)	(0.866)	(0.043)	(0.909)
PolDist	-0.059	-0.055	-0.002	0.004	2.493	0.013
	(0.116)	(0.104)	(0.112)	(0.113)	(3.748)	(4.406)
GeoDist	2.917*	-0.252	3.316*	3.498	3.533*	3.482
	(1.693)	(4.166)	(1.951)	(2.281)	(2.132)	(2.968)
CulDist	-1.499***	-1.449**	-1.540**	-1.885**	-1.547**	-1.876**
	(0.540)	(0.722)	(0.662)	(0.779)	(0.643)	(0.776)
ExcRate	-0.511***	-0.550***	-0.559***	-0.581***	-0.584***	-0.596**
	(0.143)	(0.149)	(0.138)	(0.138)	(0.143)	(0.144)
TaxBur	-0.015	0.034	0.040	0.046	0.038	0.046
	(0.035)	(0.042)	(0.037)	(0.036)	(0.038)	(0.038)
FinFre	0.042**	0.056***	0.066***	0.065***	0.065***	0.065***
	(0.018)	(0.019)	(0.021)	(0.021)	(0.021)	(0.021)
BusFre	0.013	0.014	-0.011	-0.010	-0.007	-0.008
	(0.025)	(0.025)	(0.026)	(0.026)	(0.026)	(0.027)
TimEff	0.289**	0.289*	0.336**	0.278*	0.349**	0.281*
	(0.145)	(0.160)	(0.155)	(0.148)	(0.155)	(0.151)
IPRP	, ,	-0.701*	10.464**	11.916**	9.919**	11.746**
		(0.379)	(4.417)	(4.759)	(4.358)	(4.785)
IPRP-squared			-0.744***	-0.809***	-0.707**	-0.799**
•			(0.286)	(0.306)	(0.283)	(0.309)
IPRP×EcoDist			, , ,	-0.556***	, ,	-0.546**
				(0.211)		(0.222)
IPRP-squared×EcoDist				0.042***		0.041**
1				(0.016)		(0.016)
IPRP×PolDist				(***-*)	0.536	-0.089
					(0.937)	(1.149)
IPRP-squared×PolDist					-0.046	0.001
					(0.069)	(0.082)
Constant	-20.789	10.093	-62.374**	-47.616*	-70.298**	-47.500
	(13.627)	(35.530)	(24.437)	(28.236)	(28.588)	(36.977)
Log likelihood	-271.401	-269.321	-264.372	-260.871	-263.794	260.660
Wald Chi-square	43.80***	50.12***	55.44***	61.86***	55.24***	61.39***
N	377	377	377	377	377	377

Note: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

of meeting resistance from host countries and is therefore less likely to be successfully completed than acquisitions in other industries (Zhang et al., 2011). This applies particularly to Chinese firms in the era of the Tech Cold War with growing techno-geopolitical uncertainty. Thus, based on studies by Javorcik (2004) and Zhang et al. (2011) on sensitive industries, we retain only those acquisition samples in sensitive sectors (e.g., energy, biotechnology, machinery, and equipment), accounting for 82.1% of total samples, to verify the robustness of the results. These results, illustrated in Table 5 (Models 5–8), also support our primary empirical results. Finally, we exclude the sampled acquisitions in emerging countries (India, Indonesia, Brazil, Malaysia, Thailand), thereby giving us 312 country/year observations. In Table 5 (Models

9–12), the effects of the main variables are still consistent with our primary analyses. Thus, these robustness tests confirm our empirical results as reliable.

# 6. Discussions and conclusions

Acknowledging the importance of overseas technology-driven acquisitions for China, and the critical role of IPRP institutions in the Tech Cold War, this study investigates the effects of the strength of host-country IPRP on the quantity of Chinese firms' technology-driven acquisitions by considering two moderators (i.e., economic distance and political distance). Based on the panel data from 377 country/year

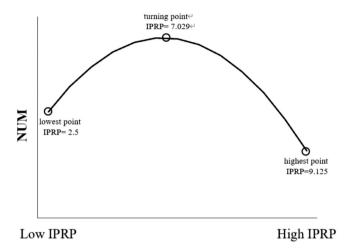


Fig. 3. Host-country IPRP strength and quantity of Chinese firms' technology-driven acquisition.

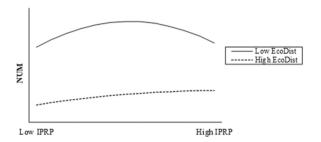


Fig. 4. The moderating effect of economic distance.

observations of technology-driven acquisitions of Chinese listed firms over the period 2008–2020, our results reveal an inverted U-shaped relationship between the strength of host IPRP institutions and the number of Chinese technology-driven acquisitions in that host country.

As an institutional advantage, a well-developed or modest IPRP institution creates a harmonized legal regime that secures commercial exploitation of the products of innovation and encourages technology transfer (Commonwealth, 2017), enabling Chinese firms to engage confidently in innovation activities in the host country, as well as effectively exploiting their own IP assets. Such IPRP institutions increase Chinese firms' willingness to invest large amounts in host countries (Estrin et al., 2018; Yamakawa et al., 2008). However, when the host IPRP becomes too strong, the institutional stickiness formed from Chinese firms' long-term operation in the home country, with its weak IPRP (Huang et al., 2017), results in organizational learning failing to keep up with the degree of IPRP institutional change in the host country. As a result, Chinese firms lack the capability needed to deal with the unpredictable challenges and costs and to leverage local technological assets when operating within such IPRP institutions (Papageorgiadis et al., 2019; Yoo & Reimann, 2017). Chinese firms, therefore, appear to conduct fewer technology-driven acquisitions in countries with very stringent IPRP. This implies that most Chinese firms are likely to practice a springboard logic, and try to source innovation from countries with modest IPRP institutions, allowing them to acquire technologies easily via M&As. This approach might be preferred to bridge technological disadvantages when competing with Western MNEs during the Tech Cold War with growing techno-geopolitical uncertainty.

Apparently, host-country IPRP is an important institutional factor for Chinese firms in relation to technology-driven acquisitions, but IPRP's impact is not linear positive or negative. Our results show that countries with optimal IPRP (a turning point of around 7) are more attractive for Chinese firms to source overseas technology, as they are considered to

benefit more from such host institutions via organizational learning. The IPRP system seems to provide a relatively predictable environment for MNEs to consider when determining their international investment strategies. Moreover, our finding of an inverted U-shaped relationship aligns with the results of studies focusing on the impact of national IPRP on innovation, which demonstrate an inverted U-relation between them (e.g., Ezzeddine & Hammami, 2018; Furukawa, 2010; Qian, 2007). This suggests that Chinese MNEs are less willing to engage in technology-seeking acquisitions in host countries with IPRP institutions that are too weak or too strong. In other words, amid growing techno-geopolitical uncertainty (Luo & Assche, 2023), tightening their IPRP institutions to a very high level might be a useful way for some Western countries to create barriers to Chinese firms' technology acquisitions. In the Tech Cold War, global value chains act as a tool to achieve geopolitical advantages, rather than as an economic or trade goal in itself (Luo & Assche, 2023), and a techno-nationalist policy environment, characterized by a stringent IPRP system, seems to become popular. The weaponization of global value chains requires MNEs, particularly Chinese ones, to consider host institutional environmental factors, such as IPRP, when organizing their global activities and investments and avoiding the hurdles of techno-geopolitical rivalries.

Our results also demonstrate that the inverted U-shaped relationship between host IPRP institutions and Chinese technology-driven acquisitions is negatively moderated by the economic distance between home and host countries. In other words, in hosts with a low economic distance from China, the effects of host IPRP on Chinese technology-driven acquisitions are stronger and more apparent compared with host countries with great economic distance from China. This is because great economic distance may act as an alternative mechanism for diminishing the attractiveness of IPRP institutions; economic distance also aggravates the ineffectiveness of Chinese firms' existing organizational capabilities and makes it difficult for them to adapt to the host country's market environment (Chen et al., 2021). Our findings suggest that political distance does not have a moderating impact on the relationship between host IPRP institutions and Chinese technology-driven acquisitions. This may be because political distance between countries is mostly related to political systems and this is not visible or familiar to Chinese business executives. Chinese acquirers which generally have limited international experience have low sensitivity to political risk induced by home-host political differences and are not able to assess it easily when making acquisition decisions. Since political distance and its potential hazards may easily be neglected by Chinese firms, it may have little effect on decisions on technology-driven acquisitions. However, political distance's implications for international business are profound in the Tech Cold War. Unlike U.S.-Japan competition in the 1980 s, centering on trade and technological interests - because of shared democratic political systems – U.S.-China tensions center on trade and technological conflicts and geopolitical rivalry, because of their different political ideologies. Clearly, the Tech Cold War is embedded in growing techno-geopolitical uncertainty, where political distance heightens conflicts and is critical to inducing additional risks and costs in Chinese MNEs' international operations. Hence, during the Tech Cold War, Chinese investors need to recognize and assess the potential hazards of political distance when configuring their technology-driven M&As.

# 6.1. Research contributions

Our study contributes to the extant research in several distinct ways. First, it gains an understanding of the location choice for Chinese firms' strategic asset-seeking acquisitions, contributing to the literature on EMNEs and the Springboard Perspective. There is much research showing that springboard internationalization by Chinese firms targets advanced markets. But there are few empirical studies explicitly analyzing the heterogeneity of advanced countries in attracting technology-driven acquisitions, leading to poor insights into Chinese

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 Table 4

 Robustness test results (using alternative measurement method).

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
EcoDist	0.022	-0.616**	0.025	-0.608**	-0.018	-1.735**	-0.017	-1.552*	0.034	-0.719**	0.035	-0.698**
	(0.043)	(0.282)	(0.043)	(0.290)	(0.033)	(0.790)	(0.033)	(0.811)	(0.042)	(0.294)	(0.042)	(0.299)
PolDist	-0.002	0.004	1.740	-0.161	-0.036	-0.040	5.647	4.929	-0.036	-0.031	2.490	0.784
	(0.111)	(0.112)	(3.718)	(3.221)	(0.112)	(0.113)	(3.490)	(3.704)	(0.113)	(0.114)	(3.175)	(3.109)
GeoDist	3.615**	3.751*	3.758**	3.802*	0.268	0.623	0.314	0.631	-4.864	-4.701	-5.137	-4.925
	(1.784)	(1.976)	(1.847)	(2.065)	(0.544)	(0.581)	(0.553)	(0.589)	(7.378)	(7.831)	(7.162)	(7.769)
CulDist	-1.548**	-1.945**	-1.556**	-1.948**	-0.120	-0.242	-0.079	-0.196	-0.593	-1.023	-0.570	-0.992
	(0.741)	(0.829)	(0.713)	(0.824)	(0.228)	(0.247)	(0.238)	(0.255)	(1.023)	(1.162)	(1.004)	(1.160)
ExcRate	-0.571***	-0.585***	-0.591***	-0.596***	-0.003	-0.041	-0.017	-0.050	-0.641***	-0.632***	-0.659***	-0.644***
	(0.139)	(0.138)	(0.144)	(0.143)	(0.083)	(0.090)	(0.089)	(0.093)	(0.156)	(0.145)	(0.157)	(0.149)
TaxBur	0.052	0.050	0.049	0.050	-0.007	-0.006	-0.007	-0.006	0.050	0.064	0.052	0.065
	(0.037)	(0.036)	(0.038)	(0.036)	(0.017)	(0.018)	(0.018)	(0.018)	(0.046)	(0.046)	(0.045)	(0.046)
FinFre	0.064***	0.066***	0.064***	0.066***	0.022	0.020	0.023	0.021	0.066***	0.069***	0.064***	0.068***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.017)	(0.017)	(0.017)	(0.017)	(0.020)	(0.021)	(0.020)	(0.021)
BusFre	-0.015	-0.013	-0.012	-0.011	0.023	0.025	0.023	0.025	0.012	0.006	0.015	0.008
	(0.026)	(0.026)	(0.026)	(0.027)	(0.020)	(0.021)	(0.020)	(0.021)	(0.027)	(0.027)	(0.027)	(0.027)
TimEff	0.345**	0.288*	0.357**	0.290*	0.584***	0.540***	0.589***	0.548***	0.342**	0.279*	0.342**	0.279*
	(0.158)	(0.149)	(0.158)	(0.150)	(0.134)	(0.134)	(0.134)	(0.134)	(0.160)	(0.152)	(0.160)	(0.152)
IPRP	0.416**	0.378**	0.396**	0.378**	4.189**	3.802**	4.243**	3.848**	3.298	2.741	3.249	2.882
	(0.163)	(0.167)	(0.163)	(0.164)	(1.805)	(1.890)	(1.862)	(1.915)	(2.689)	(2.982)	(2.762)	(3.059)
IPRP-squared	-0.004***	-0.003**	-0.004***	-0.003***	-0.302**	-0.259*	-0.305**	-0.264*	-0.300*	-0.243	-0.290	-0.251
	(0.001)	(0.001)	(0.001)	(0.001)	(0.130)	(0.136)	(0.132)	(0.137)	(0.177)	(0.194)	(0.181)	(0.198)
IPRP×EcoDist		-0.018**		-0.018**		-0.415**		-0.371*		-0.021**		-0.020**
		(0.008)		(0.009)		(0.187)		(0.193)		(0.009)		(0.010)
IPRP-squared×EcoDist		$0.001^{**}$		0.001**		0.032**		0.028*		0.001**		0.001**
		(0.000)		(0.000)		(0.015)		(0.015)		(0.000)		(0.000)
IPRP×PolDist			0.356	-0.108			1.334	1.166			0.548	0.162
			(0.928)	(0.780)			(0.891)	(0.964)			(0.779)	(0.757)
IPRP-squared×PolDist			-0.032	0.003			-0.106	-0.093			-0.046	-0.015
-			(0.068)	(0.059)			(0.066)	(0.070)			(0.058)	(0.057)
Constant	-39.015**	-32.505*	-45.317**	-32.527	-19.654**	-4.724	-38.428**	-22.658	35.890	43.653	30.078	42.129
	(15.383)	(17.312)	(20.365)	(20.751)	(7.771)	(9.878)	(15.121)	(17.019)	(64.437)	(67.951)	(63.178)	(67.621)
Log likelihood	-262.477	-259.733	-262.099	-259.581	-367.055	-359.006	-359.008	-357.428	-255.415	-251.190	-254.905	-251.117
Wald Chi-square	59.09***	64.50***	58.59***	64.24***	41.49***	44.61***	43.78***	47.04***	52.63***	62.02***	53.64***	61.92***
N	377	377	377	377	370	370	370	370	338	338	338	338

Note: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

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**Table 5**Robustness test results (using sub-samples).

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
EcoDist	0.011	-2.205**	0.014	-2.252**	-0.015	-2.848***	-0.011	-2.673***	-0.049	-2.555**	-0.048	-2.433**
	(0.044)	(0.920)	(0.044)	(0.985)	(0.043)	(0.957)	(0.043)	(0.984)	(0.034)	(1.144)	(0.035)	(1.178)
PolDist	-0.121	-0.111	1.245	-2.272	-0.005	-0.003	4.780	2.616	-0.055	-0.053	-0.192	-3.106
	(0.143)	(0.145)	(4.760)	(4.744)	(0.117)	(0.121)	(3.935)	(4.599)	(0.122)	(0.120)	(8.989)	(8.881)
GeoDist	4.504**	5.248**	4.621**	5.260**	-1.059	-0.065	-0.698	-0.045	0.814	0.968	0.889	0.999
	(1.782)	(2.049)	(1.798)	(2.042)	(9.179)	(6.320)	(7.643)	(6.247)	(0.658)	(0.637)	(0.692)	(0.646)
CulDist	-1.659**	-2.125**	-1.670**	-2.122**	-0.990	-1.605	-1.119	-1.619	-0.255	-0.406	-0.244	-0.394
	(0.754)	(1.083)	(0.732)	(1.077)	(1.618)	(1.483)	(1.379)	(1.443)	(0.268)	(0.277)	(0.278)	(0.281)
ExcRate	-0.632***	-0.667***	-0.650***	-0.670***	-0.528***	-0.544***	-0.574***	-0.588***	-0.066	-0.073	-0.083	-0.080
	(0.154)	(0.158)	(0.158)	(0.160)	(0.149)	(0.150)	(0.158)	(0.158)	(0.110)	(0.108)	(0.117)	(0.111)
TaxBur	0.032	0.044	0.031	0.043	0.063	0.075*	0.065	0.076*	0.002	0.001	0.004	0.002
	(0.040)	(0.040)	(0.040)	(0.040)	(0.043)	(0.044)	(0.043)	(0.044)	(0.017)	(0.017)	(0.018)	(0.017)
FinFre	0.055**	0.051**	0.055**	0.052**	0.061***	0.058***	0.060***	0.057***	0.007	0.009	0.009	0.010
	(0.023)	(0.023)	(0.023)	(0.023)	(0.022)	(0.022)	(0.021)	(0.022)	(0.016)	(0.017)	(0.016)	(0.017)
BusFre	-0.004	-0.005	-0.002	-0.005	-0.020	-0.020	-0.015	-0.016	0.025	0.028	0.026	0.029
	(0.032)	(0.032)	(0.032)	(0.032)	(0.028)	(0.028)	(0.028)	(0.028)	(0.021)	(0.021)	(0.021)	(0.021)
TimEff	0.237	0.177	0.244	0.178	0.177	0.125	0.181	0.126	0.512***	0.472***	0.524***	0.475***
	(0.175)	(0.168)	(0.174)	(0.169)	(0.169)	(0.171)	(0.171)	(0.171)	(0.139)	(0.135)	(0.139)	(0.135)
IPRP	7.421	10.524**	7.295	10.734**	10.332**	12.737**	9.701**	12.497**	6.197**	3.992	5.788*	3.581
	(4.652)	(5.261)	(4.490)	(5.176)	(4.652)	(5.008)	(4.596)	(4.986)	(3.048)	(2.872)	(3.129)	(2.967)
IPRP-squared	-0.548*	-0.722**	-0.538*	-0.737**	-0.741**	-0.858***	-0.695**	-0.843***	-0.397**	-0.224	-0.374*	-0.201
<u>*</u>	(0.302)	(0.337)	(0.292)	(0.332)	(0.302)	(0.323)	(0.300)	(0.322)	(0.201)	(0.192)	(0.205)	(0.197)
IPRP×EcoDist		-0.543**		-0.557**		-0.692***		-0.656***		-0.591*		-0.559*
		(0.226)		(0.243)		(0.230)		(0.238)		(0.317)		(0.325)
IPRP-squared×EcoDist		0.040**		0.041**		0.051***		0.048***		0.045**		0.043**
1		(0.017)		(0.018)		(0.017)		(0.018)		(0.021)		(0.022)
IPRP×PolDist		, ,	0.249	-0.632		, ,	1.078	0.515		, ,	-0.278	-1.035
			(1.182)	(1.192)			(0.973)	(1.199)			(2.643)	(2.610)
IPRP-squared×PolDist			-0.024	0.040			-0.088	-0.047			0.005	0.059
•			(0.087)	(0.087)			(0.072)	(0.085)			(0.170)	(0.168)
Constant	-59.209**	-55.790**	-64.148**	-49.303*	-23.092	-13.906	-39.172	-23.236	-32.915**	-2.648	-31.671	7.204
	(24.037)	(26.051)	(28.836)	(29.878)	(81.478)	(57.616)	(70.005)	(59.429)	(14.190)	(16.932)	(34.303)	(36.097)
Log likelihood	-220.933	-217.944	-220.591	-217.753	-239.492	-234.914	-238.214	-234.146	-345.323	-341.823	-344.628	-341.520
Wald Chi-square	40.04***	43.86***	39.98***	44.20***	44.16***	49.18***	45.68***	49.55***	37.93***	45.84***	38.87***	46.04***
N	351	351	351	351	364	364	364	364	312	312	312	312

Note: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

firms' favored locations. This study takes a significant step toward eliminating this gap by taking host-country IPRP, economic distance, and political distance into consideration to clarify which conditions in a host country can attract or deter technology-driven acquisitions. Our findings show that host-country IPRP matters for Chinese firms' technology-driven acquisitions, and that IPRP institutions that are too weak or too strong are not attractive to Chinese firms. In addition, by showing that economic distance between host and home countries attenuates the curvature, our study emphasizes that economic distance is critical to understanding the locations for Chinese firms' springboard internationalization (Berry et al., 2010; Gaffney et al., 2016).

Second, our study responds to the debate on the relationship between host country's IPRP and foreign investments, which has received limited attention, particularly in the EMNE context. It provides a fresh look at the relationship between host-country IPRP and Chinese firms' technology-driven acquisitions and addresses inconsistent findings in the literature on the relationship between host-country IPRP and foreign investments. The limited literature presents two divergent views of host IPRP institutions' impact on acquisitions in both advanced-market MNE and EMNE contexts: facilitator (Alimov & Officer, 2017; Allred & Park, 2007; Coeurderoy & Murray, 2008; Hasan et al., 2017; Khoury & Peng, 2011) and inhibitor (Estrin et al., 2018; Papageorgiadis et al., 2019; Yamakawa et al., 2008; Yoo & Reimann, 2017). We draw from the institutional-based and springboard perspectives and demonstrate an inverted U-shaped relationship between host-country IPRP and Chinese technology-driven acquisitions, contributing to a novel understanding of IPRP's role in shaping cross-border acquisitions. In other words, there is an optimal IPRP strength (a turning point of around 7), which is beneficial to reducing risks and leveraging intellectual assets for Chinese acquirers. Our finding of an inverted U-shaped relationship provides the empirical evidence to support Papageorgiadis et al.'s (2019) ideal of an inverted U-shaped relationship between the strength of IPRP institutions and Chinese foreign investments. In this sense, this study provides a refinement that enhances the precision of the theoretical predictions.

#### 6.2. Implications for practice

Our findings raise important business and policy implications. With regard to the implications for Chinese policymakers and businesses, our findings suggest that host-country IPRP matters for Chinese firms in conducting technology-driven acquisitions. While configuring global R&D activities, managers should be cautious about, and carefully evaluate, a host country's institutional environment and its impact so as to understand better when and where to undertake M&As for asset augmentation. Our study also suggests that, when seeking technologies abroad, Chinese firms should not only consider the quality of local institutions, but also fully consider their own capabilities. For Chinese managers, the main implication is to be clear about their own limitations and to enhance the effectiveness of organizational learning by taking advantage of current internationalization activities and inward foreign investment in China. A core aspect of this would be a forward-looking talent-management strategy. Chinese policymakers should offer detailed information and guidelines on IPRP institutions across countries, which can easily help Chinese firms to access information and obtain a better understanding of each target country's IPRP. Moreover, it is essential for the Chinese government to continue reforming Chinese IPRP institutions and promote a higher level of IPRP strength more rapidly. This will help Chinese firms to develop more effective organizational learning and allow them to exploit their IP assets, domestically and internationally, more effectively. This is particularly important in the Tech Cold War which is likely to generate a techno-nationalist policy environment.

The growing rivalry between the U.S. and China leads Western policymakers to worry about Chinese technology-driven acquisitions, particularly in strategic high-tech sectors (e.g., semiconductors). To protect superior technological knowledge and maintain leadership in

techno-geopolitical rivalry, strengthening IPRP institutions might be an opportunity for Western policymakers to pose challenges for technology transfer, which consequently may reduce Chinese firms' interest in overseas strategic acquisitions. However, it should be noted that this may force China and Chinese firms to invest more heavily in domestic R&D and become more self-sufficient – see, for instance, China's recent Dual Circulation Strategy (Luo & Assche, 2023). For example, China invests a substantial amount in supporting R&D in semiconductors. This may eventually result in China becoming an increasingly powerful nation in technological and geopolitical terms, threatening Western hegemonic leadership. Hence, using means such as excessive technology protection and technological litigation during the Tech Cold War can achieve short-term success, but may cause long-term loss.

### 6.3. Limitations and directions for future research

There are several limitations to this study, which can be regarded as opportunities for future research. First, our study mainly yields an understanding of host-country IPRP's impact on the location choice of technology-driven acquisitions based on country-level analysis. We do not consider the fact that one investing firm has made multiple acquisitions. Future research can investigate this topic and gain a deeper and complementary understanding by exploring firm-level characteristics based on firm-level analysis via case studies or surveys of firms. Second, the impact of cross-national distance on Chinese firms' technologydriven acquisitions deserves more attention. Our research has only touched upon the moderating effects of economic and political distance. More research could be conducted to study other types of institutional distance, such as regulatory distance, to gain additional understanding of the factors affecting Chinese firms' technology-driven acquisitions. Third, our theoretical hypotheses are supported by the sampled acquisitions of Chinese firms and it is hard to evaluate whether the findings are applicable to other emerging-market firms. Future research could result in our views becoming more generalized, duplicating our research methods by investigating other global latecomers such as India, Indonesia, and Brazil. In addition, our study focuses only on technologydriven acquisitions. Even though IPRP is more relevant to technologydriven acquisitions, it is interesting to explore whether our findings are replicated in other types of acquisitions, such as market-seeking and natural resource-seeking acquisitions. This could help to get a deeper understanding of the effect of IPRP. Last, but not least, we rely on only one M&A database (i.e., the BvD-Zephyr database) to derive a sample of China's technology-driven acquisitions. This database covers comprehensive records of worldwide M&A deals from a number of reputable sources and is used extensively in empirical studies on cross-border M&As. However, using multiple secondary databases (e.g., BvD-Zephyr and SDC/Thomson One Banker) could provide a more complete sample of China's technology-driven acquisitions. This combination of databases is rarely adopted and could be useful in future research.

# **Data Availability**

Data will be made available on request.

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