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Contextual status effects: The performance effects of host-country network status and regulatory institutions in cross-border venture capital

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ABSTRACT

Network status is generally considered to be a valuable firm asset; however, its effects are not well understood in the context of cross-border VC investments, as foreign VC firms can have different statuses in their home and host countries, and prior research has considered only the effects of home-country network status. Theorizing the importance of a foreign VC firm’s network status in the host country for cross-border VC investments, we hypothesize a positive performance effect for network status in the host country. Furthermore, we theorize that the performance effect of a VC firm’s network status in the host country is stronger in countries with weaker host-country regulatory institutions. We test these hypotheses using a global sample of cross-border VC investments and find support for our arguments.

1. Introduction

Given that venture capital (VC) investors generally rely on their local networks to source and screen investment proposals (Colombo, et al., 2019; Cumming and Dai, 2010; Sorensen and Stuart, 2001), network status is relevant in VC (Dimov, et al., 2007; Podolny and Castellucci, 1999) and plays an important role in cross-border VC investments (Alvarez-Garrido and Guler, 2018; Guler and Guillen, 2010a). Although past research on social networks and status has offered ample evidence of the general advantages of high network status (Greve, et al., 2014; Sauder, et al., 2012), the advantages are not equal in all circumstances (Bohner, et al., 2012; Jensen, 2008). Limiting the understanding of its effects in cross-border VC, little attention has been paid to analyzing the network status of VC firms in multiple host countries with different regulatory institutions (Ahlstrom and Bruton, 2006; Cumming, et al., 2010; Nahata, et al., 2014), which is an omission with important implications for VC policy and VC firm strategies. With the presence of country boundaries that separate entrepreneurial ecosystems, VC firms making cross-border investments can have differing statuses in different host countries. In social network theory, this phenomenon is known as status multiplicity, which is defined as “situations in which the status of actors differs across audience members” (Kovács and Liu, 2016).

Status multiplicity has important implications for the research on the value of status in cross-border VC as it necessitates the measurement of network status within each host country in which the VC firm operates. In contrast, the prior research has focused solely on the VC firm’s home-country network status (Alvarez-Garrido and Guler, 2018), assuming that the VC firm possesses a consistent network status across countries. This leaves an important gap in the understanding of the geographic contextuality of the value of network status. Foreign VC firms make cross-border investments in multiple host countries by taking an equity stake in local ventures. As they are present in multiple host-country networks, they are likely to possess different statuses in each country. Moreover, cross-border VC investors and their portfolio companies operate in many countries with different regulatory institutions that can cause important boundary conditions for the value of network status. Therefore, in this paper, we ask the following question: What are the performance effects of the network status of cross-border VC investors in host-country networks, and how do they vary by the quality of host-country regulatory institutions?

To answer these questions, we build on the concept of status multiplicity in social network theory (Kovács and Liu, 2016) when theorizing the value of a foreign VC firm’s status in different investment host countries. In the context of social networks, status multiplicity implies...
that the same actor can have different statuses in the various networks in which it participates and that the status in the focal network is most relevant for the actor’s local actions. We posit that it is important to consider status multiplicity when studying the performance effects of VC firm network status in different foreign countries. We hypothesize that, controlling for other factors, including VC firm status in the home country, VC firm status in the host country has a positive relationship with cross-border VC exit performance.

Moreover, in addition to the proposed geographic contextuality of the value of network status, we consider the institutional contextuality of the performance effects of VC firm network status in the host country. Given the importance of regulatory institutions for VC contracting and syndication highlighted in the prior VC research (e.g., Ahlstrom and Bruton, 2006; Bottazzi, et al., 2009; Cumming, et al., 2006; Cumming, et al., 2010; Dai, et al., 2012; Guler and Guillen, 2010b; Liu and Maula, 2016; Nahata, et al., 2014; Tykvova, 2018), we focus on the role of host-country regulatory institutions. We hypothesize that the quality of the host-country regulatory institutions moderates the performance effects of the network status in the host country such that the positive performance effects of the network status are amplified in host countries that have weak regulatory institutions and are reduced in host countries that have strong regulatory institutions.

We test our hypotheses using a large global sample of cross-border VC investments (Aizenman and Kendall, 2012; Dai and Nahata, 2016; Liu and Maula, 2016). Cross-border VC provides a suitable context for examining the interplay of network status and regulatory institutions because VC firms frequently syndicate their investments in both home and international markets and thereby form intense interfirm networks (Hochberg, et al., 2007; Sorensen and Stuart, 2001; Zhang, et al., 2017) and because network status affects VC investments (Dimov, et al., 2007; Guler and Guillen, 2010a; Pollock, et al., 2015). Furthermore, global VC investments are clustered in entrepreneurial ecosystems in countries with regulatory institutions of varying quality levels (Cumming, et al., 2006; Guler and Guillen, 2010b; Liu and Maula, 2016; Nahata, et al., 2014). We tested our arguments using empirical data on 8748 cross-border investments made by VC firms from 39 home countries in 38 foreign host countries between 1996 and 2016. Unique to this study, we measured the network status of foreign VC firms based on the structural positions both in their home-country VC syndication network and in each of the 38 host-country networks. In our analyses of the VC firm exit performance, we found that foreign firms’ status in the host country can help enhance firm performance in foreign countries; however, this effect is contingent on the quality of the host-country regulatory institutions. The effect of VC firm status in the host country is positive when the host-country regulatory institutions are weak.

Our study of the geographical and institutional contextuality of the value of status in cross-border VC makes three key contributions. First, the novel core finding of the paper concerning the interaction effects of VC firm status in the host country and the quality of the host-country regulatory institutions is important for the emerging literature on the role of VC network status in international settings. While the prior studies have examined the value of VC status in a single social setting and focused on the effects of VC firm status in the home country on its internationalization and performance in foreign countries (Alvarez-Garrido and Guler, 2018; Dimov, et al., 2007; Guler and Guillen, 2010a), the present study contributes by highlighting the importance of VC firm status in the host country in cross-border investments, particularly in countries with weak regulatory institutions. Therefore, this paper has important implications for the network strategies of internationalizing VC firms. Recognizing that the advantage of home-country network status is transferable to the host country in a limited manner, our findings suggest that foreign firms should deliberately consider their local networking strategies to establish valuable host-country-specific network status for their local operations. These findings also contribute to the broader literature on international entrepreneurship and entrepreneurial finance (Colombo, et al., 2019; Reuber, et al., 2018) as they add to the existing knowledge on the effects of syndication and network status on performance in cross-border VC investments (Buchner, et al., 2018; Cumming and Johanan, 2017; Cumming, et al., 2016; Devigne, et al., 2018; Drover, et al., 2017; Li, et al., 2014).

Second, by introducing the notion of status multiplicity in the international VC research (i.e., a firm operating in many countries can have different statuses in its home country and the host countries of its foreign operations), we challenge the underlying assumption of the existing studies on organizational status—specifically, that firms have a consistent status across social settings (Alvarez-Garrido and Guler, 2018; Guler and Guillen, 2010a; Piazza and Castellucci, 2014; Saucer, et al., 2012). In doing so, we contribute to the research on international entrepreneurship and the research at the intersection of international business and economic sociology (e.g., Ellis, 2000; Ellis, 2011; Haas and Cummings, 2015; Iurkov and Benito, 2018, 2020; Shi, et al., 2014; Shijaku, et al., 2020).

Third, we contribute to the stream of research on the effects of institutions in international entrepreneurship (e.g., Coeudroy and Murray, 2008; Cumming, et al., 2016; Guler and Guillen, 2010b; Jackson and Deeg, 2008; Lu, et al., 2014; Meyer, et al., 2009; Peng, et al., 2008) by highlighting the substituting role of firm network status for host-country regulatory institutions. For VCs investing abroad, strategic networking to increase the local network status is particularly important when investing in countries with weak regulatory institutions. This finding also has important policy implications for countries that aim to develop their VC markets to boost innovation and entrepreneurship because overreliance on local network ties can create an entry barrier for foreign firms and hinder the functioning of the market (Hochberg, et al., 2010; Milosevic, 2018). Our findings suggest that countries developing the internationalization of their VC markets should focus on improving their legal institutions (Dossani and Kenney, 2002), which would help reduce the reliance of VCs on private networks and connections and open the market for new investors.

2. Theoretical background and hypotheses

2.1. Network status and performance in foreign markets

Network status derived from social affiliations is considered important to organizations (Greve, et al., 2014; Piazza and Castellucci, 2014; Podolny, 2005; Sauder, et al., 2012). However, despite the extensive body of knowledge produced by scholars of economic sociology on the benefits of organizational status, we know relatively little about how firms can benefit from it in foreign countries with different institutional settings. Among the first studies focusing on network status in international settings, Guler and Guillen (2010a) argued that home-country network status is transferable to and valuable in multiple contexts as a signal of firm quality and competence. High status in the home country may help the firm secure access to valuable types of resources at market entry. Empirical evidence from this study suggests a positive effect of a firm’s home-country status on that firm’s internationalization. Similarly, Alvarez-Garrido and Guler (2018) argued that VC firms with high home-country status may have an advantage in sourcing attractive cross-border investment opportunities, may add value to their ventures through their resources and expertise, and may boost the status of the affiliated ventures.

Although these first studies indicate the importance of network status for overall success, we consider the role of network status in host countries. In the context of international entrepreneurship, network status is considered important to organizations (Greve, et al., 2014; Piazza and Castellucci, 2014; Podolny, 2005; Sauder, et al., 2012). In the context of international entrepreneurship, network status is considered important to organizations (Greve, et al., 2014; Piazza and Castellucci, 2014; Podolny, 2005; Sauder, et al., 2012). In the context of international entrepreneurship, network status is considered important to organizations (Greve, et al., 2014; Piazza and Castellucci, 2014; Podolny, 2005; Sauder, et al., 2012).
status in international entrepreneurship, they focus specifically on the VC firm’s home-country status without considering and measuring the focal firm’s status in foreign host-country networks. That is, these studies assume that the VC firm’s network status develops only in the home-country network and excludes the possibility of foreign VC firms establishing different statuses in the other countries in which they operate. The implied underlying assumption is that the status of the firm is consistent in all the markets in which the firm operates, which has been shown not to be a viable assumption in the recent research on “status inconsistency” and “status multiplicity” (Jensen and Wang, 2018; Kovács and Liu, 2016). This stream of research suggests inconsistencies in an actor’s statuses across contexts and audiences. Concerning the importance of status multiplicity, Kovács and Liu posit the following: “Taking status multiplicity into account matters because action is at least partly local, and therefore action that is influenced by status is influenced more strongly by local status than by global status” (2016: 37). As an illustration of status multiplicity in a cross-border context, they note that “an immigrant might have high status where she originates from but low status where she migrates to” (Kovács and Liu, 2016:36).

We argue that status multiplicity is particularly salient in international entrepreneurship and cross-border transactions. In international settings, firms actively operate and form ties in multiple foreign countries, thereby taking positions in different networks. Because “status ripples through relationships” (Greve et al., 2014), the status of the firm depends on the company it keeps. Consequently, a firm may have differing statuses in different countries. For instance, in multinational enterprises (MNEs), the status enjoyed by subsidiaries in their host countries may not be identical to the status of the parent in the home country as each subsidiary may maintain a different set of connections. Thus, the status advantages that accrue from the embeddedness in these local networks may differ substantially. In a similar vein, for a foreign VC firm that is active in both home and host countries, it is important to differentiate between the firm’s status in its home country and in its host countries. While the prior research on status in international settings, such as cross-border VC (Alvarez-Garrido and Guler, 2018; Guler and Guillén, 2010a) and cross-border alliances (Jurkova and Benito, 2020; Shi et al., 2014), has considered only the influence of the home-country network status, building on status multiplicity logic, we contend that it is important to also consider the value of locally established statuses in host countries.

In contrast to the network status in the home country, the network status in the host country stems from the position in the local host-country network. Drawing upon the notion of status multiplicity (i.e., the status of a firm can differ among markets), we contend that a firm’s network status in a host country is a location-bound firm-specific advantage (FSA) constrained by the firm’s network ties in that country. Thus, a firm may possess varying levels of network status in multiple host countries subject to its partnering patterns in specific contexts.

At market entry, network status in the host country is by default absent as the foreign firm has not formed any local ties. Nevertheless, network status in a specific host country is not always fully independent of a firm’s statuses in other countries. As suggested by the research on the transferability of network advantages (Guler and Guillén, 2010a) and network emergence (Hallen, 2008; Milanov and Shepherd, 2013), status in the new context is linked to statuses in other contexts via the firm’s market-entry choice and the firm’s initial partnership decision upon entry. In our context, this implies that status in a host country may initially result from both the transfer of status from the home country and the firm’s initial partners at market entry. Regardless, it is important to note that such effects are temporally constrained to the initial status building stage. Status in the host country is, nevertheless, significantly shaped by the firm’s local actions within the host-country network.

Concerning the mechanisms through which network status offers advantages for firms, Greve et al. (2014) synthesized the prior research and identified three distinct mechanisms: information, cooperation, and power advantage. These mechanisms are important for understanding a VC firm’s status value in cross-border investments. The information advantage of high status results from the willingness of partners to share information with high-status firms, and, thus, such firms are better informed at a lower cost and better understand the industry and market (Godart et al., 2014; Lin et al., 2009; Maula et al., 2013; Shipilov et al., 2017; Sørensen and Stuart, 2001). The cooperation advantage is the result of high-status firms being more attractive partners and their ability to obtain more effort from their partners (Castellucci and Ertug, 2010; Gultekin, 1999; Huang et al., 2015; Podolny, 2001; Sørensen and Stuart, 2001). In VC, this indicates that high-status VCs are more likely to be invited to become syndicate partners by other high-status VCs and facilitate access to higher-quality investment opportunities. Finally, the power advantage of having high status helps firms enforce contracts and protect their investments as other firms are more likely to agree with and accept the authority of high-status firms (Greve et al., 2014; Podolny, 1993; Sauder et al., 2012).

In cross-border VC, high host-country network status may be particularly valuable for VC firms as it helps them access high-quality local resources when investing in ventures located in a foreign country. This is because VC firms making cross-border investments face higher risks as they invest in foreign countries and the cross-border aspect exacerbates the information asymmetry problem between the foreign investor and local stakeholders. High host-country network status and the resulting local embeddedness help reduce such risks by facilitating a firm’s access to both information sources and local partners.

First, high status in the host-country network provides information advantages for improving a VC firm’s access to local knowledge, which is often central to VC success in deal flow sourcing, screening, and due diligence (Mäkelä and Maula, 2008; Wright et al., 2002). As the financial information available to foreign VC firms concerning potential target ventures, which are private local companies, is generally very limited, syndicating with local partners has become a favored strategy for many foreign VCs (Dai et al., 2012; Huang et al., 2015; Liu and Maula, 2016). Ample empirical evidence suggests that partnering with local VCs facilitates value creation in cross-border VC (Chenmanur et al., 2016; Dai et al., 2012; Wang and Wang, 2012). With the cooperation advantages resulting from high status, we expect high network status in the host country to amplify the benefits from syndication with locals. This is because foreign VCs with high status in the host country are more likely to be invited to syndicate with other high-status local VCs and enjoy better access to local knowledge and high-quality deal flow. Moreover, the prior research has shown evidence that high-status VCs are more likely to be invited to better deals and be offered better investment terms by the ventures (Hsu, 2004).

Second, because foreign VC firms are often located far away, having high host-country status may also lead to important information and cooperation advantages for foreign VCs in the monitoring stage—both local VC partners and local ventures are likely to be more willing to share valuable information regarding the monitoring process or the key factors for the startup development with the focal foreign VC firm than a firm with high host-country status. Third, foreign VCs with high host-country status also benefit from their greater relative power in enforcing their contracts and protecting their investments in foreign ventures. Local stakeholders, including VC syndicate partners and entrepreneurs of the invested venture, are more likely to act as agreed upon given the high local status of the foreign firm. The endorsement effect from a high status foreign VC firm also increases the value of portfolio companies (Stuart et al., 1999).
In conclusion, on the basis of the mechanisms discussed above, high host-country status in a specific foreign country enhances a foreign VC firm’s chances of investment success. Thus, we hypothesize the following:

**Hypothesis 1.** The greater the network status of a foreign VC firm in the host country’s interfirm network is, the better its investment performance in the host country.

### 2.2. The interaction effect of status in the host country and host-country regulatory institutions

In addition to the geographic contextuality of the value of network status (i.e., status multiplicity) in cross-border VC, we consider its institutional contextuality as well as its interactions. The prior studies on the VC industry have highlighted the relevance of regulatory institutions for effective investment activity (Bottazzi, et al., 2009; Cumming, et al., 2006; Cumming, et al., 2010; Guler and Guillén, 2010a; Tykvová, 2018). Stronger regulatory institutions in the host country provide important investor protection to foreign VCs by ensuring the enforcement of contracts with local stakeholders (Bottazzi, et al., 2009; Guler and Guillén, 2010a; Kaplan, et al., 2007; Lerner and Schaar, 2005; Taussig, 2017; Taussig and Delios, 2015), which include but are not limited to local syndication partners and entrepreneurs of the invested venture (Liu and Maula, 2016; Tykvová, 2018). Moreover, stronger regulatory institutions ensure a more fair and open business environment, and thus, foreign VC firms face lower costs and fewer obstacles in accessing local information and resources (Ahlstrom and Bruton, 2006).

When investing in countries with weak regulatory institutions, VC firms must depend more on personal contacts to access relevant information and enforce agreements (Ahlstrom and Bruton, 2006; Bruton, et al., 2004; Buchner, et al., 2018; Cumming, et al., 2006; Cumming, et al., 2010; Fuller, 2010; Li, et al., 2014; Taussig, 2017; Taussig and Delios, 2015). As noted by Ahlstrom and Bruton (2006:314), based on 65 interviews with venture capitalists in emerging economies around East Asia: “venture capitalists find that their networks take on added importance in the emerging economy.” In line with these arguments, Pezeshkan, et al. (2020) noted, on the basis of their country-level configurational analysis of international VC in the Asia-Pacific region, that, “[international VC] firms can enjoy high performance in distant countries with voids in core institutions by relying on their networks…” (Pezeshkan, et al., 2020).

Given the role of networks in substituting for weak regulatory institutions in VC, we argue that the network status of foreign VC firms in the host country is more important when investing in ventures located in host countries with weak regulatory institutions. When accounting and financial information is less reliable for evaluating potential investment targets in countries with weak regulatory institutions, the value of private information and personal contacts increases (Ahlstrom and Bruton, 2006; Bruton, et al., 2004; Huang, et al., 2015). This increases the value of status in local networks. Similarly, lacking the protection provided by strong host-country regulatory institutions, VC firms operating in weak institutional environments must rely more on their status in host-country networks, which also increases the value of network status in the host-country network because high status in local networks facilitates contract enforcement when supporting institutions are weak (Taussig, 2017). Moreover, while foreign VC firms investing in developed markets with strong regulatory frameworks may well rely upon court rulings and legal systems in the face of conflicts, they may not only need to face more such conflicts but also need to resolve such conflicts, more likely outside of court in countries with less developed regulatory institutions (Ahlstrom and Bruton, 2006), which is also supported by high status in local networks. Through high status in local networks, foreign VCs are in a better position to monitor their investments, which is of increased importance in countries with weaker regulatory institutions (Ahlstrom and Bruton, 2006). Overall, we posit that the value of VC firm network status in the host country is likely to be greater for the firm’s performance when making investments in countries with a relatively weak regulatory institutional context:

**Hypothesis 2.** The quality of host-country regulatory institutions negatively moderates the positive effect of a VC firm’s network status in the host country on its investment performance in the host country.

### 3. Data and methods

#### 3.1. Empirical setting

Cross-border VC provides a good context for the analysis of the geographic and institutional contextualization of network status. This is because VC firms frequently syndicate in both home and international markets, forming interfirm networks (Hochberg, et al., 2007; Hochberg, et al., 2010; Liu and Maula, 2016), and because status is critical for success in the VC industry (Guler and Guillén, 2010a; Pollock, et al., 2015). Moreover, cross-border VC investments are prevalent in a broad range of markets; i.e., ventures receive foreign VC investments in both developed countries, such as Germany and the Netherlands (Jääskeläinen and Maula, 2014), and in emerging countries, such as China and India (Dai, et al., 2012; Huang, et al., 2015). Despite the increasing prevalence of cross-border VC investments, country borders still play a significant role (Colombo, et al., 2019; Reuber, et al., 2018).

Innovation clusters, VC investments, and VC syndication networks tend to remain predominantly domestic (Madhavan and Iriyama, 2009; Turkina and Van Asche, 2018). Hence, the variations in the geographic and institutional environments of these host countries provide an ideal context to investigate the value of network status and the influence of institutions on the performance effect of status.

#### 3.2. Data

We test our hypotheses using data on cross-border investments made by VC firms in 38 foreign countries between 1996 and 2011. The main data source is the VentureXpert database of Refinitiv, which is the most comprehensive database of the global VC industry and has been used widely in cross-border VC research (e.g., Aizenman and Kendall, 2012; Chemmanur, et al., 2016; Dai and Nahata, 2016; Guler and Guillén, 2010a; Liu and Maula, 2016; Vedula and Matsusik, 2017). To obtain reliable data on exits, we also collected IPO and M&A data from Refinitiv’s Global New Issues Database and Merger & Acquisition Database (Chemmanur, et al., 2016; Cumming, et al., 2016; Dai and Nahata, 2016; Jääskeläinen and Maula, 2014; Li, et al., 2014). We then matched the exit data to the investment data to obtain a full picture of the venture histories. Following the prior studies (e.g., Dai, et al., 2012; Liu and Maula, 2016), we restricted our sample to independent VC firms and ventures between the seed/startup and later stages. We began with all cross-border investments by VC firms in countries other than their home countries between 1996 and 2016. We excluded VCs and ventures for which the names and nations were undisclosed in the database. We also excluded host countries with fewer than ten cross-border investments over the sample period to eliminate outlier countries (Chemmanur, et al., 2016). We then focused on ventures that were initially funded between 1996 and 2011 and tracked those ventures’ performance from receipt of their first investment from the focal VC to the date of their exit or the end of May 2016, a minimum tracking period consistent with those of Hochberg, et al. (2007), Nahata (2008), and Dai and Nahata (2016).

In line with Li, et al. (2014), we focused on each foreign VC firm’s first investment in the local venture to better capture the initial effect of status on performance. We did so for three main reasons. First, the initial investments lay the foundation for the success of the investment and are the most clearly affected by the status mechanisms we theorize; i.e., the status affects the VC’s access to deal flow. However, after the first investment in the company, the VC’s access to making a follow-on investment is practically secured, and such a deal flow access effect of...
3.3. Dependent variable

The dependent variable is divided into three groups based on this measure. Regulatory institutions by visualizing the sample host countries and giving a sense of the measure of the quality of the host-country regulatory institutions by the strength of regulatory institutions (Dimov and Milanov, 2010; Podolny, 2001). Third, there could be a time gap between the first investment and follow-on investments made by the VC firm, the status in the host country might differ in follow-on rounds.

Although domestic investments were included in the calculation of network measures, the focal sample includes only cross-border investments. Our final sample consists of 8748 cross-border investments (i.e., VC firm-venture dyads) by 1281 VC firms from 39 home countries in 6275 portfolio companies in 38 foreign countries. Fig. 1 illustrates the geographic coverage of the sample cross-border VC investments and gives a sense of the measure of the quality of the host-country regulatory institutions by visualizing the sample host countries divided into three groups based on this measure.

3.3. Dependent variable

Following the prior studies on VC exit performance (e.g., Alvarez-Garrido and Guler, 2018; Cumming, et al., 2016; Dai, et al., 2012; Dai and Nahata, 2016; Espenlaub, et al., 2015; Hochberg, et al., 2007; Li, et al., 2014; Nahata, 2008; Nahata, et al., 2014), we measure the VC exit performance at the deal level as the successful exit of the venture via either IPO or acquisition. A value of 1 indicates that the VC firm has successfully exited the deal, and zero indicates otherwise. This is a conventional and appropriate measure for VC performance because VC firms earn their capital gains mainly from ventures that have exited via an IPO or an acquisition and because the availability of investment return data at the VC firm level is limited (Hochberg, et al., 2007). Furthermore, given our focus on the effects of the host-country network status and regulatory institutions (which vary between investments made by a VC firm), an investment-level unit of analysis and dependent variable are needed.

3.4. Independent variables

Status in the host country refers to a firm’s position in the local network consisting of both foreign and local players operating in the same host country. Building on the extant status literature that has assumed and demonstrated status to be inferred from network affiliations (Betancourt, et al., 2018), we adopted Bonacich (1987) centrality to measure firm status, which accounts for the status of the affiliations in addition to connections and is the most commonly used measure of network status in many industries (e.g., Jensen, 2003; Podolny, 1993, 1994) including the VC industry (Alvarez-Garrido and Guler, 2018; Dimov and Milanov, 2010; Maula, et al., 2013; Milanov and Shepherd, 2013; Sorenson and Stuart, 2001). Following the prior studies, we consider a tie to exist if two VC firms invested together in the same venture. Due to our focus on international settings, the status in the host country indicates a firm’s network position at the country level, which refers to the host country of the focal investment. For year t, we construct a local network for the host-country VC industry using the local syndication history of firms for the prior five years (t-5 to t-1). Because our sample covers a time range of 16 years and 38 host countries, we constructed 608 local networks. The local network status scores are normalized (ranging from 0 to 1) at the country level, and a value of 1 indicates that the firm has the highest status in the specific host country for the deal year. Generally, the highest status positions in the host country were obtained by domestic VCs.

Quality of host-country regulatory institutions is a measure of the development level of the institutional environment in a specific host country. Research has highlighted the multiplicity and complexity of institutions (Hitt, et al., 2004; Marano, et al., 2016; Peng, et al., 2008) and the importance of focusing on the aspect of the institutional environment that is the most critical and relevant to the empirical setting (Brouthers, 2013). In this regard, the legal institutions in the host countries have been shown to be most relevant for cross-border VC performance (Cumming, et al., 2006; Dai, et al., 2012; Li, et al., 2014; Nahata, et al., 2014; Tykvová, 2018). Therefore, we operationalize regulatory institutions using the law and order index from the PRS Group’s International Country Risk Guide (Jandhyala, 2013; Liu and Maula, 2016), which is a time-variant measure capturing the dynamics of the host-country regulatory institutions on an annual basis for the 1996-2011 study period for each of the 38 host countries. This measure ranges from 0 to 6, with higher values indicating stronger legal institutions of the host country (in our sample, the observed range is from 1.5 to 6.0). To ensure robustness, we also tested a static legality measure (Cumming, et al., 2006; Dai, et al., 2012) as an alternative measure of regulatory institutions, as reported in the robustness analysis section.

3.5. Control variables

To rule out alternative explanations, we include several control variables in the models to address the characteristics of VC firms, portfolio companies, and investments, along with several characteristics of the industry and the institutional environment.
of both the home and the host countries that could influence VC performance.

First, we control for the effect of status in the home country. Following the measurement of VC status in the host country, we used a similar 5-year observation window for the home-country networks and calculated the standardized status score of the VC firm in the home country. In the same vein, we constructed 624 home-country networks covering 16 years and 39 home countries. At the VC firm level, we used two variables to control for the effect of a firm’s prior experience on performance (Dai, et al., 2012; Dai and Nahata, 2016; Li, et al., 2014). VC firm host-country experience measures the total number of previous ventures in which a foreign VC firm invested in a host country up to the year of the focal investment, while VC firm international experience captures the total number of previous ventures in which a foreign VC firm has invested in nondomestic countries up to the year of the focal investment (Li and Maula, 2016). An annual 30% depreciation rate was applied to both experience measures to account for the decay in the effect of the experience. A natural log was used for both experience measures. We also controlled for the effect of firm size. VC firm size is measured as the VC firm’s total capital under management (ln) as larger VC firms have often been found to have higher exit performance (Hochberg, et al., 2007).

At the investment level, we include several variables to control for deal-specific effects on performance. Syndicate size measures the number of VC firms investing in the same venture and the same round. Investment round size is the total amount of capital (ln) raised in a specific round. Following the prior research, we also control for the effect of the venture stage by including three dummy variables for four investment stages and use later-stage ventures as the base group. To control for portfolio company industry differences, we include five industry dummy variables and use non-high-tech as the base industry group. Both the venture stage and industry information are based on company stage information and industry classification in the VentureXpert database. We also include a control, i.e., market-entry deal, which is a dummy variable with a value of 1 indicating that the deal is the first investment the focal VC firm made in the specific host country. We also control for local VC firm participation using a dummy to indicate the inclusion of at least one local VC firm in the syndication as local syndicate partners might increase the likelihood of success due to their easier access to local networks, information, and resources (Chemmanur, et al., 2016; Dai, et al., 2012; Nahata, et al., 2014). Finally, we control for cumulative investment amount in the venture before the focal round (in millions of U.S. dollars), as it signals the venture quality and attractiveness (Alvarez-Garrido and Guler, 2018).

At the country level, we control for the national differences that have been argued to be most relevant for cross-border VC investments in the prior related research, which are as follows: geographic distance, cultural distance, linguistic distance, GDP growth, stock market development, country interconnectedness, and country relative global position (Alvarez-Garrido and Guler, 2018; Chemmanur, et al., 2016; Dai, et al., 2012; Li, et al., 2014; Nahata, et al., 2014). While our theoretical arguments and empirical tests focus on the host-country regulatory institutions, we control for the home-country regulatory institutions in the empirical analyses using the same measure (a variable measuring institutional differences could not be included in the presence of the two level-variables as it would be multicollinear). We control for geographic distance and cultural distance given their argued relevance for cross-border VC investments in the prior studies (Chemmanur, et al., 2016; Dai, et al., 2012; Nahata, et al., 2014). In this study, geographic distance is defined as the distance in kilometers (ln) (great circle distance) between a firm’s home country and its host country, while cultural distance is measured using data from the GLOBE project (Hhouse, et al., 2004; Liu and Maula, 2016). Furthermore, we control for the effects of languages using a dummy for common official language shared by the host country and the home country in each cross-border investment (Melitz and Toubal, 2014). The relational characteristics of the home and host countries shape how firms can leverage their home-country status in the foreign host country and thus influence their performance in the foreign host country. To capture that, we followed the work of Alvarez-Garrido and Guler (2018) and included two dyadic country-level network measures in the model: host country-home country interconnectedness and the host country versus home country relative position in the global network.

We also control for the characteristics of the macroeconomic environment in which the venture is located. We controlled for the effects of GDP growth and stock market development in the host country because the overall economic situation might influence firm performance (Cumming, et al., 2016), and cross-country evidence reveals that the level of stock market development matters for VC investment (Nahata, et al., 2014). The former is measured as the annual percentage change in GDP per capita, while the latter is measured using the natural log of market capitalization in the host country (Chemmanur, et al., 2016). We also included year dummy controls in all models.

3 In additional unreported robustness analyses suggested by an anonymous reviewer, we also included alternative additional control variables for the IPO market, M&A market, VC supply, the size of the GDP of the venture country, the alliance count of the focal ventures, VC investment stage drift, and VC investment style drift, but did not include them in the main analyses because of high correlations with other control variables or the incomplete availability of these controls for our full sample. Our results continue to hold when adding these variables as control variables.

4 Given that our dependent variable is a binary variable and the potentially endogenous variable is included in an interaction term, the two-stage model cannot be estimated using a traditional instrumental variable regression. Therefore, we adopt the extended probit regression (eoprobit) introduced in Stata 15 to accommodate instrumental variable estimations in models with binary dependent variables, endogenous covariates and their interactions (Stata, 2018).
Table 1
Descriptive statistics and correlations.

| Variables                                      | Mean  | S.D.  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   |
|------------------------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 Exit                                         | 0.45  | 0.50  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2 Status in the host country                   | 0.10  | 0.20  | -0.03|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 3 Status in the home country                   | 0.25  | 0.31  | 0.00 | 0.32 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 4 Host-country regulatory institutions         | 5.25  | 0.78  | 0.12 | -0.17| -0.02|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 5 Home-country regulatory institutions         | 5.39  | 0.60  | 0.06 | 0.09 | 0.05 | 0.18 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 6 VC firm host-country experience              | 1.03  | 1.07  | 0.02 | 0.49 | 0.34 | 0.00 | -0.02|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 7 VC firm international experience             | 1.69  | 1.44  | 0.00 | 0.52 | 0.46 | -0.09 | 0.10 | 0.72 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 8 VC firm size                                 | 6.50  | 2.05  | 0.00 | 0.32 | 0.32 | -0.12 | 0.13 | 0.30 | 0.50 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 9 Syndicate size                               | 2.51  | 1.81  | 0.16 | -0.11| 0.01 | 0.15 | -0.01| 0.06 | -0.04|$ -0.12|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10 Investment round size (Sm)                  | 15.09 | 34.67 | 0.05 | -0.02| 0.00 | -0.05 | -0.02| -0.01| 0.02 | 0.07 | 0.18 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 11 Venture seed stage                          | 0.10  | 0.30  | -0.03| 0.01 | 0.02 | 0.04 | 0.02 | 0.00 | 0.00 | -0.10| -0.07|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 12 Venture early stage                         | 0.28  | 0.45  | -0.02| 0.02 | 0.01 | 0.03 | -0.01| 0.01 | 0.00 | -0.03 | -0.08 | -0.21|      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 13 Venture expansion stage                     | 0.48  | 0.50  | -0.01| 0.00 | -0.01| -0.02 | 0.05 | -0.03 | 0.01 | 0.05 | 0.01 | 0.04 | -0.32 | -0.59|      |      |      |      |      |      |      |      |      |      |      |      |
| 14 Market-entry deal                           | 0.26  | 0.44  | -0.01| -0.30| -0.23 | 0.04 | 0.02 | -0.57 | -0.44 | -0.21 | -0.02 | 0.02 | 0.01 | -0.01 | 0.02 |      |      |      |      |      |      |      |      |      |      |
| 15 Local VC firm participation                 | 0.43  | 0.49  | 0.12 | -0.07 | 0.01 | 0.19 | -0.02 | 0.14 | 0.00 | -0.13 | 0.58 | 0.03 | -0.04 | -0.02 | -0.03 | -0.09|      |      |      |      |      |      |      |      |      |
| 16 Cumulative investment amount in the venture (Sm) | 3.86  | 24.94 | 0.06 | -0.03 | 0.02 | -0.04 | -0.01 | -0.04 | -0.04 | 0.00 | 0.15 | 0.30 | -0.05 | -0.06 | -0.02 | 0.00 | 0.02 |      |      |      |      |      |      |      |      |
| 17 Geographic distance                         | 7.04  | 4.25  | 0.00 | -0.08 | -0.08 | -0.17 | -0.27 | 0.09 | -0.05 | 0.03 | 0.01 | 0.01 | -0.01 | 0.00 | -0.03 | -0.08 | 0.00 | 0.00 |      |      |      |      |      |      |      |
| 18 Cultural distance                           | 0.69  | 0.31  | -0.05 | 0.08 | 0.00 | -0.31 | -0.10 | -0.10 | 0.06 | 0.02 | -0.10 | 0.05 | -0.05 | -0.04 | 0.07 | 0.08 | -0.15 | 0.01 | 0.04 |      |      |      |      |      |      |
| 19 Common official language                    | 0.48  | 0.50  | 0.02 | -0.13 | -0.05 | 0.11 | 0.06 | 0.00 | -0.12 | -0.01 | -0.03 | -0.04 | 0.00 | -0.04 | -0.04 | 0.01 | -0.02 | 0.05 | -0.48|      |      |      |      |      |      |
| 20 GDP growth (annual %)                       | 4.07  | 3.45  | -0.08 | 0.16 | 0.00 | -0.32 | -0.13 | 0.09 | 0.11 | -0.13 | 0.05 | -0.02 | 0.00 | 0.02 | -0.08 | -0.15 | 0.00 | 0.20 | 0.25 | 0.00 |      |      |      |      |
| 21 Stock market development                    | 4.58  | 0.58  | 0.03 | -0.16 | 0.01 | 0.41 | -0.05 | 0.14 | -0.03 | -0.17 | 0.16 | -0.01 | 0.01 | 0.04 | -0.06 | -0.08 | 0.22 | -0.04 | 0.08 | -0.31 | 0.19 | -0.09|      |      |
| 22 Home country - host country interconnectedness | 3.63  | 1.50  | 0.02 | 0.03 | -0.04 | 0.20 | 0.03 | 0.32 | 0.03 | 0.09 | 0.01 | 0.06 | -0.08 | -0.23 | 0.16 | -0.01 | 0.02 | 0.47 | 0.35 | 0.09 | 0.33 |      |      |
| 23 Home country - host country relative global position | 1.09  | 0.39  | -0.07 | 0.20 | -0.06 | -0.36 | 0.12 | -0.24 | 0.02 | 0.32 | -0.24 | 0.03 | -0.01 | 0.01 | 0.04 | 0.19 | -0.31 | -0.00 | 0.04 | 0.19 | -0.04 | 0.25 | -0.43 | -0.02|

Note: N = 8748, raw variables (not logged).
4. Results

4.1. The effects of status in the host country and regulatory institutions on cross-border VC exit performance

Table 1 presents the descriptive statistics and the correlation matrix for the dependent variable, independent variables, and control variables. The variance inflation factor (VIF) values of the variables (excluding their product terms) were low (between 1.19 and 3.91 in Model 2) and well below the common threshold of 10 (e.g., Kutner, et al., 2004), which suggests that multicollinearity should not be a concern in our analyses.

Table 2 presents the results of the probit regression models that we estimated to test the hypotheses examining the interaction effects of VC firm status in the host country and host-country regulatory institutions on VC firm exit performance in cross-border investments. Model 1 is the baseline model and includes only the control variables including VC firm status in the home country. Model 2 adds the main independent variable VC firm status in the host country. The interaction term of VC firm status in the host country with the host-country regulatory institutions is added in Model 3, which we consider to be our main model. We first report the hypothesis tests, followed by the interpretation of the effect sizes and their confidence intervals, as well as the robustness of the results across various additional tests.

Hypothesis 1 predicted that VC firm status in the host country is positively related to the VC firm exit performance in foreign host countries. As observed in Model 2, the effect of VC firm status in the host country on performance is not statistically significant ($\beta = -0.02, p = 0.81$ in Model 2), suggesting that status does not have a uniformly positive effect. However, when the interaction term of VC firm status in the host country with the host-country regulatory institutions is added to the hypothesized full model (Model 3), the main effect of VC firm status in the host country is positive and significant ($\beta = 0.99, p = 0.03$) while the interaction term is negative and significant ($\beta = -0.21, p = 0.02$).
supporting both Hypotheses 1 and 2. Given that the effect of VC firm status is conditional on the quality of the regulatory institutions and that there are no uniform positive effects, we conclude that Hypothesis 1 receives only conditional support; however, Hypothesis 2 is consistently supported in the main model and in the robustness tests reported below.

To further interpret the results of the hypothesized interaction effects, we consider the effect sizes and their confidence intervals (Anderson, et al., 2019; Mize, 2019; Wasserstein, et al., 2019). In particular, we calculate the average of the marginal effects (Greene, 2012; Mize, 2019) based on the main model (Model 3). The interaction effect is plotted in Fig. 2. Panel A shows the average marginal effects of the VC firm status in the host country across different levels of host-country regulatory institutions. This marginal effect plot clearly shows that the value of status is strongest in countries with weak regulatory institutions, and the marginal effects remain positive up until the regulatory institutions value is above 5 (within our sample range from 1.5 to 6.0). Panel B interprets the same interaction effect from the alternative perspective (Mize, 2019) as follows: the marginal effect of the host-country regulatory institutions variable is positive when the VC firm status in the host country is low but decreases and even turns
negative with a higher status of the VC firm in the host country. Finally, panel C plots the predicted probabilities of a successful exit depending on the VC status in the host country and the strength of the host-country regulatory institutions across our sample range in both dimensions (status from 0.0 to 1.0 and regulatory institutions from 1.5 to 6.0). The plot is approximately 60%, with the highest predicted probabilities being in the lower right corner of the plot with high status of the VC in a host country with weak regulatory institutions. The lowest probabilities occur when the status is low in a country with weak regulatory institutions. The plot is negatively with a higher status of the VC firm in the host country. Finally, panel C plots the predicted probabilities of a successful exit depending on the VC status in the host country and the strength of the host-country regulatory institutions across our sample range in both dimensions (status from 0.0 to 1.0 and regulatory institutions from 1.5 to 6.0). The contour plot in panel C shows that the resulting predicted probabilities of successful exit vary in the range of approximately 30% to approximately 60%, with the highest predicted probabilities being in the lower right corner of the plot with high status of the VC in a host country with weak regulatory institutions. The lowest probabilities occur when the status is low in a country with weak regulatory institutions. The plot is consistently with both our expectations and with the previous research (Dai, et al., 2012), ventures at later stages, with larger syndicate sizes, and with larger investment rounds are more likely to make a successful exit. The consistent positive and significant effects of the host-country regulatory institutions in Models 1-3 also help validate the importance of regulatory institutions for VC performance in foreign countries (Cumming, et al., 2006; Nahata, et al., 2014; Tykvová, 2018; Wang and Wang, 2012). The network status in the VC home country was not significant in any of our models. In unreported additional regression models, we also tested whether the VC status in the home country would have a positive performance effect when interacted with country interconnectedness or country relative global position (Alvarez-Garrido and Guler, 2018). None of the models we tested produced statistically significant results. Although the performance effects of VC status in the host country are also highly context-dependent (as hypothesized and
supported by our empirical findings), the reported results and additional tests seem to support our general assumption that the foreign VC status in the focal host country matters more in cross-border investments than the status established in the home country of the VC. Additionally, VC firm experience does not predict VC firm performance, which is consistent with most of the existing studies (Chenmanur, et al., 2016; Dai, et al., 2012; Dai and Nahata, 2016) but differs from Li, et al. (2014) that used a different measure.

4.2. Robustness tests

We also sought to investigate the robustness of our results in several additional ways. The results concerning the robustness tests are presented in Table 3.

First, as an alternative approach to approximating the marginal effects without the complications related to nonlinear models, in Model 4, we replicated the main model using an LPM (e.g., Wooldridge, 2015:227). The results were consistent (β = 0.37, p = 0.04 for H1 and β = -0.08, p = 0.03 for H2). Although all of the tests we implemented support the hypothesized effect that VC status in the host country is more positive in countries with weak host-country regulatory institutions, we found it interesting that the model also predicted that status would become not only nonsignificant but also negative in host countries with the strongest regulatory institutions (although this effect was weak and limited to a small number of observations). We thus explored this further and ran additional robustness tests by splitting the sample based on the lowest 10% (4.125) and highest 10% (6.0) of the observations based on the strength of the regulatory institutions. The results were consistent with other tests, showing the following: the performance effect of the VC firm status in the host country was positive in the subsample based on the bottom 10% of regulatory institutions (β = -0.42, p = 0.04) and negative in the top 10% of regulatory institutions (β = -0.39, p = 0.03). Although not predicted by our hypotheses, the negative performance effects of a very high cross-border VC status in countries with the strongest regulatory institutions seems to receive some additional anecdotal support from cases such as 3i, which, in our sample, was the most active investor among the cross-border VCs with top 10% status in host countries and with the top 10% strongest regulatory institutions (such as Austria, Finland, Germany, Singapore, and Sweden), representing 92 (53%) of 174 such high-status and strong-institution deals in our sample of 8748 deals, and which later ended its early-stage VC activity because of underperformance (Arnold, 2008). Given that this negative effect was not hypothesized and could be an anomaly related to one or few investors, we leave it to future research to further explore the potential negative effects of status under some circumstances. As such, prior research on the downsides of status has also found that high status can cause negative performance effects in some situations (Sztarni, et al., 2020), for instance, due to the constraints of high-status actors (Sauder, et al., 2012) or other reasons such as complacency and distraction (Bthoner, et al., 2012; Piazza and Castellucci, 2014).

In other robustness tests, we also noted that using a logit model instead of the probit model did not change our results (Model 5). Thereafter, we tested an alternative measure for regulatory institutions. We reestimated the models using the legality index (Berkowitz, et al., 2003; La Porta, et al., 1998), which has been used in several prior studies on VC exit performance to measure the quality of the regulatory institutions (Cumming, et al., 2006; Dai, et al., 2012). In comparison with the variable used in the main analysis, which is a dynamic measure of law and order available annually for the full sample, this alternative measure has the weaknesses of being temporally invariant (calculated as a weighted average of the years 1982-1995) and being available only for a subset of sample countries (for 7706 of our 8748 observations).

Nevertheless, the results were rather consistent, as shown for Model 6 (β = -1.02, p = 0.05 for H1 and β = -0.05, p = 0.05 for H2). We also tested the hypotheses using event history analysis because we are interested in the specific event of the venture’s successful exit (Alvarez-Garrido and Guler, 2018; Dai, et al., 2012; Nahata, et al., 2014; Wang and Wang, 2012). Event history analysis is appropriate for examining the timing of the exit event as a function of time-varying variables, and it accounts for the right censoring feature in our sample. In particular, we used the Cox proportional hazards model because we did not want to make any a priori assumptions about the baseline hazard rate (Cleves, et al., 2016). Although several covariates violated the proportional hazard assumption, this does not cause concern for time-varying variables (Guler, 2007). The focal event was an exit via either IPO or acquisition, and those ventures that had not exited by May 2016 were treated as right censored. As shown for Model 7, we obtained results that were qualitatively similar to those in the main analysis (β = 1.09, p = 0.05 for H1 and β = -0.22, p = 0.05 for H2). The results were also qualitatively similar when estimating the event history model using a parametric exponential model in Model 8 (β = 1.16, p = 0.05 for H1 and β = -0.24, p = 0.05 for H2). In addition, we tested the hypothesis using a competing risks model because the standard Cox proportional hazard regression and exponential survival regression ignore the competing event of company dysfunction or bankruptcy. As shown for Model 9, the results were qualitatively similar (β = 1.09, p = 0.05 for H1 and β = -0.22, p = 0.05 for H2).

We also consider market-entry deals, for which the foreign VC firm, by default, has not yet established its host-country network status. While we control for market-entry deals in the main analysis, to further disentangle the effect of host-country status, we conducted an unreported subsample analysis by focusing only on those deals in which the foreign VC firm has made at least one deal in the market. A value of zero for host-country status in this case indicates that the firm has made only solo investments and hence has not gained any host-country status through prior syndications. The results are consistent with those in the reported main models.

Finally, given our cross-border setting, in which the target ventures (level 1) are nested within the host countries (level 2), and given our theoretical interest in the cross-level interaction between the status of the VC firm in the host country (level 1, as it is measured for each investment) and the host-country regulatory institutions, we also considered the need to estimate the model as a multilevel model to ensure the robustness of our results (Anderson, et al., 2014; Peterson, et al., 2012). Therefore, we first ran a null model estimating host-country random effects using meprobit in Stata 15. The intraclass correlation (ICC) of 3.1%, which is well below any common thresholds (Aguinis, et al., 2013), suggests that a multilevel model is not necessary. Nevertheless, in Model 10, we estimated a multilevel model with cross-level interaction. The results are consistent with the results of the main model (β = 0.89, p = 0.05 for H1 and β = -0.20, p = 0.03 for H2). This reported model is based on noncentered variables; however, the results also remain consistent in unreported tests when cluster-mean centering or grand-mean centering the focal variables (Aguinis, et al., 2013). Furthermore, in additional unreported robustness tests, we replicated the main model with VC firm fixed effects as well as using two-way clustered standard errors (Cameron, et al., 2011) with error terms clustered by both the venture and the VC firm, and consistent results were obtained.

5 In these subsample analyses, the measure for the strength of the regulatory institutions and its interaction term with local status were eliminated because of limited variance. The two experience control variables were also eliminated because of multicollinearity issues.

5. Discussion and conclusions

Network status is known to be important in VC (Alvarez-Garrido and Guler, 2018; Dimov, et al., 2007; Guler and Guilen, 2010a; Podolny and Castellucci, 1999); however, the performance effects of network status are not well understood in cross-border VC investments that span country boundaries (Chenmanur, et al., 2016; Dai, et al., 2012; Jääskeläinen and Maula, 2014; Liu and Maula, 2016; Meuleman, et al., 2017). Although organizational status is generally considered to offer advantages (Benjamin and Podolny, 1999; Greve, et al., 2014; Jensen, 2003; Podolny, 1993; Podolny and Phillips, 1996), the nature of the status and the type of...
advantages it offers are not as clear when broadening the perspective to cross-border VC and international entrepreneurship with multiple host countries and different institutional settings. When a firm enters foreign countries and participates in multiple networks, we argue that the location specificity (Ghemawat, 2003; Rugman and Verbeke, 2004) of firm-specific advantage becomes an important aspect to consider in understanding the value of network status. Building on the notion of status multiplicity in social network theory (Kovács and Liu, 2016) and extending its application to the context of international entrepreneurship and cross-border VC, we distinguish the VC firm status in the host country from the status in the home country and examine the effects of the former on VC firm performance in cross-border investments. Moreover, building on the recent studies examining the effects of the home-country status in international business (Alvarez-Garrido and Guler, 2018; Guler and Guillén, 2010a; Shi, et al., 2014), we argue that to advance the research of the geographical and institutional contextuality of network status in international entrepreneurship and business, the distinction between the firm status in the home country and the firm status in the host country is important. We theorize that the status in the host country is central to cross-border transactions because of the local information, cooperation, and power advantages it provides to the firm. Furthermore, we theorize that the value of the status in the host country should be particularly salient in cross-border transactions where the host country’s regulatory institutions are weak. Our empirical analyses using a global sample of cross-border VC investments from 39 home countries and in 38 foreign host countries during the period from 1996 to 2016 support these arguments.

Our study on the geographical and institutional contextuality of the value of status in cross-border VC makes three key contributions. First, our study contributes to the research on international entrepreneurship and entrepreneurial finance (Colombo, et al., 2019; Reuber, et al., 2018) by improving our understanding of the effects of syndication and network status on performance in cross-border VC investments (Buchner, et al., 2018; Cumming and Johant, 2017; Cumming, et al., 2016). Specifically, given the empirical focus of the study on cross-border VC, our findings are particularly relevant for understanding the value of firm status in the VC industry (Dimov, et al., 2007; Milanov and Shepherd, 2013; Pollock, et al., 2010; Pollock, et al., 2015) and for the research on cross-border VC (Dai, et al., 2012; Dai and Nahata, 2016; Jääskeläinen and Maula, 2014; Meuleman and Wright, 2011; Wright, et al., 2002; Wright, et al., 2005). Our core finding of the interaction effect of VC firm status in the host country with the quality of regulatory institutions is a novel contribution to the existing literature on the role of status in the VC context. This finding is particularly important for internationalizing VC firms, and it highlights the importance of actively establishing high network statuses in new host countries when VC firms expand beyond their country borders and make investments in portfolio companies in host countries with weak regulatory institutions.

Second, our findings contribute to the organizational status literature (Piazza and Castellucci, 2014; Sauder, et al., 2012) by demonstrating how firms benefit from status in international settings. The extant research has provided substantial evidence regarding home (country) status effects on the firm’s industry entry (Jensen, 2003), internationalization (Guler and Guillén, 2010a), cross-border partnerships (Shi, et al., 2014), and foreign market performance (Alvarez-Garrido and Guler, 2018). However, this research has assumed a single homogenous network status across social settings. Thus, distinguishing status in the host country from that in the home country and examining its influence in multiple foreign host countries on firm performance provides a more granular understanding of the contextual value of network status. Beyond our contributions to the status literature based on our international perspective, the findings also contribute to the very recent research recognizing ‘status multiplicity’, i.e., the fact that status may differ between audiences (Jensen and Wang, 2018; Kovács and Liu, 2016). Our paper goes beyond audience difference and highlights the importance of an active networking strategy to establish sufficient local statuses in the new countries into which the firm enters. Our empirical examination also indicates that although there is a relatively static status in the home country, a firm may possess varying levels of status in different host countries and may benefit from status differently across host countries. Relatedly, a low status in the home country does not preclude a firm from attaining high status in other countries.

Third, our examination of the interacting geographical and institutional contextuality of the value of network status also contributes to the research on institutions in international entrepreneurship and business (e.g., Coeurdroy and Murray, 2008; Doh, et al., 2017; Guler and Guillén, 2010b; Jackson and Deeg, 2008; Lu, et al., 2014; Meyer, et al., 2009; Peng, et al., 2008) by highlighting the substituting role of network status for regulatory institutions. Specifically, our findings show the importance of the institutional context for network advantages in international markets. Our findings in the cross-border VC setting suggest that the network status in the host country is more valuable for firms operating in weak regulatory institutional environments as it provides otherwise-absent support for operating a business efficiently and effectively in the local context. The prior studies in this stream have emphasized the difficulties faced by foreign firms in such weak institutional environments due to a lack of local experience or partners (Kingsley and Graham, 2017). We add to this stream of research by demonstrating the substituting role of network status for regulatory institutions and explicating the mechanisms through which the status in the host country helps firms mitigate weak host-country regulatory institutions. Furthermore, as advocated by van Hoorn and Maseland (2016) for the research on the effects of institutions, we are pioneering by including institutional diversity in both the sample home countries (39 home countries) and in the sample host countries (38 host countries).

Empirically, our global sample covering a time span of two decades of cross-border VC investments advances the prior cross-border VC research that has generally studied more limited samples (Alhorr, et al., 2008; Dai, et al., 2012; Devigne, et al., 2013; Jääskeläinen and Maula, 2014; Mäkeli and Maula, 2006; Tykovová and Schertler, 2011). Moreover, with a broad sample covering multiple portfolio company industries, we go beyond the single-industry focus of the related prior research such as in the biotechnology industry (Alvarez-Garrido and Guler, 2018). By constructing 39 dynamic home-country and 38 dynamic host-country interfirm networks for each sample year, we also make a methodological contribution to the interorganizational network research by broadening the focal networks (Carpenter, et al., 2012; Zaheer, et al., 2010) and, in particular, by demonstrating that firms can have different network statuses in different home-country and host-country networks.

For the practice of cross-border VC and international entrepreneurship and business in general, a granular understanding of the geographical and institutional contextuality of the performance effects of organizational status is important because international firms are active in multiple interfirm networks that are partially separated by geographical boundaries (Colombo, et al., 2019; Scalera, et al., 2018; Turkina and Van Assche, 2018). Recognizing the importance of status in foreign host countries, especially when the host country’s regulatory institutions are weak, can help internationalizing firms to actively shape their partnering strategies to strengthen their local network positions in their focal host countries, for instance, by investing in local networking to improve their local network status and performance in the focal foreign countries (Andersson, et al., 2002; Holm, et al., 1996, 1999). The empirical findings directly suggest that network status is more important and that different networking strategies are needed by foreign VC firms when investing in countries such as Brazil, Egypt, India, Mexico, Nigeria, Russia, and Turkey, which are some of the host countries in our sample with weaker regulatory institutions, compared to making VC investments in countries such as Austria, Denmark, Finland, Netherlands, Ireland, and Sweden, which are some of the host countries in our sample with stronger regulatory institutions. Our findings also have policy implications for countries that aim to develop and internationalize their VC markets to boost innovation and entrepreneurship because overreliance on network ties can create an entry barrier and hinder the functioning of the market (Hochberg, et al., 2010; Milosevic, 2018). Our findings suggest that countries developing...
the functioning and internationalization of their domestic VC markets should focus on improving their legal institutions (Bottazzi, et al., 2009; Cumming, et al., 2006; Dossani and Kenney, 2002; Tykvová, 2018), which would help reduce the reliance of entrant foreign VCs on private networks and connections and open the VC market for new investors.

As with all empirical studies, our study is limited in several respects, which offer important avenues for future research. First, our sample is based on the VC industry, in which both firm status and interorganizational networks are of great value (Milanov and Shepherd, 2013; Pollock, et al., 2015). While our theoretical arguments are neither specific to the focal VC industry nor to other professional service industries, some care should be taken when generalizing the findings beyond the VC industry. At the same time, this suggests that future research could explore the value of status in the host country and the relevance of status multiplicity in international markets in other industries. In particular, MNEs could be adopted as an interesting context in which to understand the different roles of the home status enjoyed by the company headquarters and the multiple local statuses possessed by the subsidiaries in different host countries. Further research would also be warranted on the networks of MNEs, i.e., the extent to which the network is relevant at the corporate level versus at the subsidiary level (Berry, 2018; Meyer, et al., 2011). Moreover, by studying the MNE’s network advantages at both the home-country and the host-country levels, future studies could also examine important forms of network resources other than network status (Gulati, 1999).

Second, while using both IPOs and acquisitions as exit performance measures for our dependent variable, we acknowledge that due to data limitations, we were unable to exclude possible fire sales; i.e., those in which companies were sold at heavily discounted prices and should not be viewed as successful exits. Like in most global VC studies (e.g., Aizenman and Kendall, 2012; Dai and Nahata, 2016; Guler and Guillén, 2010a; Li, et al., 2014), we had to rely on VentureXpert data concerning the nationalities of VC firms and portfolio companies. However, as noted by Huang, et al. (2015) who compared these data in the Chinese market, there are inaccuracies and investments by Chinese subsidiaries of foreign VC firms that are recorded as Chinese, making their investments appear domestic. Although we collected additional data on the Chinese investments in our sample and ran several robustness tests (e.g., excluding Chinese investments), obtaining consistent results, verifying and cleaning VentureXpert data for all 39 home countries and 38 host countries was not feasible. Additionally, other aspects of VC internationalization, such as the presence of local offices, would benefit from further research. Additionally, although we sought to ensure that endogeneity does not undermine our findings, we could not rely on natural experiments or other similar methods to ensure the causal identification in our study that examined the interaction effect of status in the host country and the host country regulatory institutions; instead, we leave it to future cumulative research to identify and implement additional complementary tests to strengthen the causal identification (Shaver, 2020).

Finally, our study was limited to investigating the performance effects of the VC firm status in the host country. Additional research on the antecedents of the VC status in the host country is also warranted. Further research could unpack the mechanism underlying the establishment of a VC firm’s status in the host country and the potential link between the firm’s statuses in the home country and in the host country. Additionally, the potential negative effects of status in some circumstances is worthy of future research (Sztarni, et al., 2020).

In summary, our study suggests significant geographical and institutional complexity of the value of firm status in cross-border VC and international entrepreneurship. By adopting the status-multiplicity perspective from the social network research and applying it to the analysis of cross-border VC syndication networks, our study distinguished the network status in the host country from that in the home country and examined the performance effects of a VC firm’s network status in the host countries when the VC firm operates in multiple foreign countries. By constructing annual interfirm networks for both the home and the host countries and analyzing VC firms’ exit performance in cross-border VC investments between 1996 and 2016, we found that the VC network status in the host country is beneficial for the VC firm performance in foreign countries when the host country’s regulatory institutions are weak. Thus, we believe our study represents a further step in understanding status advantages by linking the network status in the host country to foreign firm performance in multiple host countries and identifying specific institutional conditions in which network status advantages are amplified. Recognizing the interacting effects of network status and regulatory institutions is relevant both for policymakers developing local VC markets and for VC firms investing in foreign countries.

Author statement

Both authors contributed equally to the conceptualization, methodology, data collection, formal analysis, and writing involved in creating this paper.

Declaration of Competing Interest

The authors declare that there are no known conflicts of interest associated with this publication.

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Appendix. Addressing the potential endogeneity of VC status in the host country

Given that the potential endogeneity of VC status in the host country might affect the robustness of our main findings on the performance effect of status in the host country and its interaction with the host-country regulatory institutions, we implemented two sets of robustness tests to address this issue. First, we implemented instrumental variable regression and assessed the exogeneity of status in the host country in multiple tests, which together suggested that we cannot reject the exogeneity of this variable and that endogeneity is not a severe issue in our model. This result informed our model choice; we decided to adopt a simple probit model in the main analysis and to use a two-staged model as a robustness test, as reported in this appendix. Second, we ran a two-stage extended probit model using the identified instrument in the first stage of the model. The results provided support for our main findings. Below, we detail our selection of the instrument variable, the rationale for our model choice, our implementation of the analyses, and the results.

A valid instrumental variable should be exogenous and should not have a direct effect on the dependent variable whereas it should be strongly correlated with the potential endogenous explanatory variable (status in the host country). On the basis of these criteria, we identified mean status of the VCs in the focal city as the instrument for status in the host country, with the variable capturing the average status of VC firms at the city level. This instrument is theoretically relevant for the VC status in the host country because the network status of the focal actor is a function of the statuses of the partners. When investing in a city in which the partners have, on average, relatively higher status than VCs in the other cities, it is easier for the focal VC to form ties with nationally higher status partners and, thereby, establish a higher network status in the host country. At the same time, the mean status of the VCs in a city should not directly influence the performance of the focal deal because the performance effects of status result from the status of the VCs involved in the deal and not
competing investors investing in other deals. Moreover, a city-level rather than a country-level measures also eases the concern of its potential linkage to overall VC market conditions.

We also empirically established the relevance of this instrument variable and exclusion restriction. Regarding relevance, the mean status of the VCs in the focal city has a significant positive correlation with the VC status in the host country (correlation coefficient $\beta = 0.47$, $p=0.00$), and the coefficient in the first stage regression (Model 11 in Table A1, discussed below in more detail) is also positive and significant ($\beta = 0.54$, $p = 0.00$). Regarding the exclusion restriction, to assess the direct effect of this instrument on the dependent variable, we included it in the main model and reran Models 2 and 3 of Table 2. The results show that this instrument is not significantly related to exit performance in either model ($\beta = 0.08$, $p = 0.559$ in Model 2 and $\beta = -0.08$, $p = 0.528$ in Model 3). Combined with the arguments above, the results of the test suggest that mean status of the VCs in the focal city is a valid instrument for status in the host country. Moreover, the value of the F-test in assessing the strength of this instrument is 916.51, which is well above the common threshold of 10 (Stock and Yogo, 2002), suggesting that our instrument is strong.

As the initial step, we ran several tests to assess the endogeneity of status in the host country. First, following a two-stage ivprobit test, the reported values for the Wald test of exogeneity are as follows: $\text{chi2}(1) = 0.36$, Prob $>\text{chi2} = 0.5491$ when using mean status of the VCs in the focal city as the instrument in the $1^{\text{st}}$ stage. This Wald test assesses the

### Table A1
Robustness tests on cross-border venture capital exit performance.

<table>
<thead>
<tr>
<th></th>
<th>Model 11 1st stage</th>
<th>2nd stage</th>
<th>Model 12 1st stage</th>
<th>2nd stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Status in the host country</td>
<td>1.14 (0.51)</td>
<td>1.24 (0.56)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2: Status in the host country</td>
<td>-0.21 (0.02)</td>
<td>-0.24 (0.02)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Host-country institutions</td>
<td>-0.01 (0.00)</td>
<td>-0.01 (0.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Host-country institutions</td>
<td></td>
<td></td>
<td>0.00 (0.07)</td>
<td></td>
</tr>
<tr>
<td>Status in the home country</td>
<td>0.06 (0.01)</td>
<td>0.07 (0.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home-country institutions</td>
<td>0.00 (0.00)</td>
<td>-0.00 (0.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VC firm host-country experience</td>
<td>0.09 (0.00)</td>
<td>0.00 (0.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VC firm general international experience</td>
<td>0.01 (0.00)</td>
<td>0.01 (0.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VC firm size</td>
<td>0.00 (0.23)</td>
<td>0.00 (0.62)</td>
<td>0.00 (0.16)</td>
<td>0.00 (0.69)</td>
</tr>
<tr>
<td>Venture expansion stage</td>
<td>0.00 (0.95)</td>
<td>-0.17 (0.05)</td>
<td>-0.00 (0.72)</td>
<td>-0.18 (0.00)</td>
</tr>
<tr>
<td>Venture early stage</td>
<td>0.01 (0.02)</td>
<td>-0.11 (0.0)</td>
<td>0.00 (0.71)</td>
<td>-0.14 (0.02)</td>
</tr>
<tr>
<td>Market entry deal</td>
<td>0.00 (0.02)</td>
<td>-0.03 (0.48)</td>
<td>-0.01 (0.04)</td>
<td>-0.06 (0.20)</td>
</tr>
<tr>
<td>Local VC firm participation</td>
<td>0.00 (0.59)</td>
<td>0.05 (0.02)</td>
<td>-0.05 (0.90)</td>
<td>0.05 (0.01)</td>
</tr>
<tr>
<td>Cumulative investment</td>
<td>-0.01 (0.00)</td>
<td>0.07 (0.16)</td>
<td>-0.01 (0.00)</td>
<td>0.07 (0.14)</td>
</tr>
<tr>
<td>Market entry</td>
<td>-0.03 (0.00)</td>
<td>0.02 (0.41)</td>
<td>-0.03 (0.00)</td>
<td>0.00 (0.83)</td>
</tr>
<tr>
<td>Cultural distance</td>
<td>-0.00 (0.56)</td>
<td>0.01 (0.07)</td>
<td>0.00 (0.53)</td>
<td>-0.00 (0.97)</td>
</tr>
<tr>
<td>Common official language</td>
<td>-0.03 (0.00)</td>
<td>0.07 (0.07)</td>
<td>-0.03 (0.00)</td>
<td>0.10 (0.02)</td>
</tr>
<tr>
<td>GDP growth</td>
<td>0.00 (0.00)</td>
<td>0.00 (0.05)</td>
<td>0.00 (0.00)</td>
<td>-0.01 (0.31)</td>
</tr>
<tr>
<td>Stock market development</td>
<td>-0.01 (0.23)</td>
<td>0.02 (0.62)</td>
<td>-0.01 (0.01)</td>
<td>0.05 (0.35)</td>
</tr>
<tr>
<td>Home country – host country interconnectedness</td>
<td>-0.01 (0.00)</td>
<td>0.00 (0.83)</td>
<td>-0.01 (0.00)</td>
<td>-0.01 (0.55)</td>
</tr>
<tr>
<td>Home country – host country relative global position</td>
<td>0.12 (0.00)</td>
<td>0.03 (0.65)</td>
<td>0.12 (0.00)</td>
<td>0.01 (0.91)</td>
</tr>
<tr>
<td>ASA</td>
<td>0.08 (0.01)</td>
<td>0.63 (0.29)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venture industry dummies</td>
<td>Yes Yes Yes Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes Yes Yes Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean status of the VCs in the focal city</td>
<td>0.54 (0.00)</td>
<td>0.52 (0.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.12 (0.04)</td>
<td>-1.49 (0.38)</td>
<td>0.09 (0.05)</td>
<td>-1.72 (0.54)</td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>-8748 (8745)</td>
<td>-7482 (7482)</td>
<td>-715.8 (0.00)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Unstandardized coefficients reported with robust standard errors that are clustered by venture (in parentheses). p-values (two-tailed) are in square brackets.
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significance of the residuals’ coefficients (Wooldridge, 2010). As these residuals are from the first-stage regression and are included in the second stage, the test result suggests that the residuals are not significantly related to exit performance; hence, endogeneity is not a significant concern. Second, when the two-stage regression in Model 11 is run (Table A1 below), the estimate of the correlation between the errors of the two equations (the first-stage equation and the second stage equation) is \( -0.02 \) (-0.007 in Model 12), and it is not significantly different from zero (\( p=0.528 \) in Model 11 and \( p=0.864 \) in Model 12), which also suggests that endogeneity is not a significant issue in our model.

Following that, we chose to adopt a simple normal probit in Table 2 as our main model and adopted a two-stage model in this robustness analysis using Stata’s `eprob` (extended probit regression), which is a model that belongs to Stata’s new extended regression models (ERMs). This model is appropriate and superior to a normal two-staged model, as it accommodates instrumental variable estimation in models with binary dependent variables, endogenous covariates, and their interactions (Stata, 2018), which are all important features of our hypothesized model. The estimator of `eprob` is a maximum likelihood estimator based on Wooldridge (2010), and the log-likelihood function maximized by `eprob` is described in Roodman (2011).\(^6\)

Model 11 in Table A1 treats the VC firm’s status in the host country as endogenous and tests the full hypothesized model in two stages, in which the first stage uses `mean status of the VCs in the focal city` to predict `status in the host country` (measured as a continuous variable between 0 and 1), and the second stage is the substantive model explaining exit performance as a binary dependent variable. The first-stage equation also includes host-country status as a driver of host-country status (Liu and Maula, 2019), VC host-country experience, VC general international experience, market entry dummy, and other control variables used in the second stage.

Model 12 in Table A1 adopted an additional control variable for airline service agreements (ASA), which is a dummy variable indicating whether airline service agreements are signed between two countries prior to the deal year (Chemmanur, et al., 2016; Piermartini and Rousová, 2013). This variable captures the effective proximity between countries, which could affect the possibility of a VC becoming central and achieving a high status in the host country. We were able to match ASA data with the host-home country pairs for 7482 observations (85.5%). Thus, we included ASA in the robustness test of the 2SLS, as shown in Model 12. In all models, the standard errors are clustered at the venture-level because a single venture may receive multiple investments from different VC firms in our sample.

The results of the first-stage model in Model 11 show that the instrumental variable `mean status of the VCs in the focal city` is significantly related to `status in the host country` (\( \beta = 0.54, p = 0.00 \)). Concerning other predictors of interest, `status in the home country` (\( \beta = 0.06, p = 0.00 \)), `VC host-country experience` (\( \beta = 0.09, p = 0.00 \)), and `VC international experience` (\( \beta = 0.01, p = 0.00 \)) are all positively related to `VC status in the host country`, `market entry deal` (versus subsequent deal) is negatively related to `VC status in the host country` (\( \beta = 0.01, p = 0.02 \)), the `VC host country institutions` variable is negatively related to `VC status in the host country` (\( \beta = -0.01, p = 0.00 \)), and the `VC home country institutions` variable is positively related to `VC status in the host country` (\( \beta = 0.005, p = 0.05 \)). An increase in geographical distance (\( \beta = -0.03, p = 0.00 \)) makes it more difficult for foreign VCs to obtain high local status.

Concerning the results of the hypothesis tests in the substantive second stage of Model 11, the interaction term is negative and significant (\( \beta = -0.21, p = 0.02 \)), while the direct effect of `VC status in the host country` is positive and significant (\( \beta = 1.14, p = 0.03 \)), thus providing support for H1 and H2; i.e., `VC status in the host country` has an interaction effect with host-country institutions on exit performance, increasing the effect in host countries with weak regulatory institutions and decreasing the effect in host countries with strong regulatory institutions.

Regarding the results of Model 12 with the added ASA control variable, in the first stage, the instrumental variable `mean status of the VCs in the focal city` is significantly related to `VC status in the host country` (\( \beta = 0.52, p = 0.00 \)). The effect of ASA is positive and significant in the first stage (\( \beta = 0.08, p = 0.01 \)), suggesting that the commencement of an ASA among countries can effectively improve the likelihood of a foreign VC firm entering the host country and identifying higher-quality partners, thus obtaining higher local status. Moreover, the second-stage results regarding the ASA’s effect on exit performance (\( \beta = 0.63, p = 0.03 \)) support the findings by Chemmanur, et al. (2016) that ASAs are positively and significantly related to exit performance in international markets. Concerning other predictors of interest, the result from Model 12 is qualitatively similar to that of Model 11. Overall, the results of the hypothesis tests remain consistent supporting both H1 and H2. As a final note, although the results of these robustness tests are highly consistent with the results of the main analyses, the exogeneity tests suggest that potential endogeneity status in the host country should not affect our results; therefore, the simpler probit model is more appropriate in this situation.

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As a final note, although the results of these robustness tests are highly consistent with the results of the main analyses, the exogeneity tests suggest that potential endogeneity status in the host country should not affect our results; therefore, the simpler probit model is more appropriate in this situation.

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\(^6\) For a detailed description of the implementation and use of extended probit regression, see pages 120-145 in Stata (2018).

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\(^7\) We are indebted to an anonymous reviewer for the valuable advice of considering ASA a potential exogenous factor.