WHEN DO ETHNIC COMMUNITIES AFFECT FOREIGN LOCATION CHOICE? DUAL ENTRY STRATEGIES OF KOREAN BANKS IN CHINA

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WHEN DO ETHNIC COMMUNITIES AFFECT FOREIGN LOCATION CHOICE? DUAL ENTRY STRATEGIES OF KOREAN BANKS IN CHINA

ABSTRACT: Research shows that firms tend to expand into foreign locations with sizeable co-ethnic communities. Yet many cases exist in which the ethnic community influences the investment choice of the same firm in one location but not in another. We offer an institutional lens to explain this heterogeneity in location choice. Ethnic groups function like informal institutions that facilitate transactions between a foreign firm and customers, suppliers, and information providers through interpersonal exchange. Relying on ethnic communities to mediate transactions in foreign markets is valuable but limited by the relatively small scale of these communities. In contrast, relying on formal institutions allows firms to expand more broadly into the foreign market because the impersonal exchange inherent in formal governance is more scalable. This is manifested in 'dual entry strategies' by which ethnic communities have a significantly stronger influence on location choice in places with unreliable (weak and unstable) formal institutions than in in places with reliable formal institutions. We found support for these ideas using a unique dataset of South Korean banks' investments in Chinese provinces during 1992-2013. To mitigate endogeneity concerns, we exploited a historical migration that created a quasi-random distribution of ethnic Koreans across provinces. Our work contributes to research on international expansion, ethnic communities, and institutional theory.

International expansion is one of the most promising avenues of firm growth, but selecting the right foreign location requires overcoming significant barriers (Zaheer, 1995). A core endeavor of global strategy research is thus to find factors that help firms overcome the barriers to foreign expansion. Recent work has pointed to one such factor: transnational ethnic or immigrant communities (e.g. Foley & Kerr, 2013; Hernandez, 2014; Iriyama, Li, & Madhavan, 2010; Kerr, 2008; Kulchina, 2016). These studies find that firms are more likely to select foreign locations and perform better in them the greater the size of the co-ethnic community. The proposed explanation is that such communities mediate access to valuable resources for firms from the homeland, such as markets for the firm's products (demand), labor and other inputs (supply), and networks of information (knowledge) (Hernandez, 2014; Iriyama et al., 2010; Kulchina, 2016).

Despite these reported benefits, firms make heterogeneous investment choices across locations with potentially valuable co-ethnic communities. Foreign firms do not always choose to locate where co-ethnic groups reside, and some case studies have shown that the same firm may court immigrants in one location but not in another (Bartlett & O'Connell, 1998; Dawar & Chandrasekhar, 2009). Further, the ethnic community itself may not always find the presence of firms from the homeland valuable. Reconciling these issues helps address an important question: *When* is economic exchange between firms and communities of the same ethnicity valuable in foreign markets? To address this question, we offer an institutional perspective that gets at the underlying mechanism by which communities and firms can mutually benefit each other. This perspective offers a boundary condition for the relationship between ethnic communities and foreign expansion, leading to empirically testable hypotheses that predict *where* ethnic communities will influence location choice.

We build on research suggesting that ethnic communities can help firms overcome institutional deficiencies to explain the common factor driving the demand, supply, and knowledge benefits posited by prior research. The co-ethnicity between a firm and a community is the basis for shared language, codes of conduct, and solidarity that facilitate economic exchange (e.g. Portes & Sensenbrenner, 1993). This informal, socially based ‘institutional’ mechanism facilitates transactions with clients, suppliers, and knowledge providers. For example, a potential foreign entrant can obtain information from co-ethnic individuals (Hernandez, 2014), navigate labor market frictions by hiring co-ethnic labor (Kulchina, 2016), or secure contracts by relying on the trust and social enforcement of the community (Grief, 1993). And the ethnic community itself can benefit from transacting with a co-ethnic firm through increased access to products, services, and employment opportunities. Ceteris paribus, this informal institutional mechanism encourages location choice by reducing exchange hazards.

Despite these potential benefits, we argue that embedding economic exchange within a co-ethnic community is only effective within the scale and scope of actors inside the community’s sphere of influence. For instance, a potential foreign entrant expecting to rely on the community to mediate the hiring of workers is limited to the social networks of the ethnic group. And ethnic individuals seeking employment are also limited to being hired by firms connected to the same community. If the labor market has significant institutional voids, the firm may not be able to hire nor would individuals be able to work outside the community. But if the host location has an efficient formal labor market, the firm can access a larger pool of talent and individuals can access a larger set of employers—lessening the need to rely on the community’s institutional role. The same would apply to demand- and knowledge-related transactions.

This example illustrates our main theoretical point: the ethnic community is a valuable but limited means of mediating economic exchange. It places a ceiling on the expected potential of the market for firms considering entry because the trust and solidarity of the community to facilitate transactions does not apply to outsiders. In contrast, formal institutions are more broadly applicable because their impersonal nature facilitates economic exchange among a greater variety of parties and at greater scale (e.g. among both ethnic and native market participants) (Zucker, 1986; Peng, 2003). This does not mean that ethnic communities are not valuable; only that the mechanism by which they facilitate foreign investment becomes less necessary if formal institutions are available. We posit that this is manifested in a ‘dual entry strategy': the ethnic community has a significantly positive influence on location choice in places where formal institutions are unreliable, but a significantly weaker impact on the odds of entry in places where formal institutions are reliable.

To test this proposition, we hypothesize that two conditions influence firms' expectations about the reliability of formal institutions in host locations: the strength of property rights laws (North, 1990) and the level of environmental uncertainty (Henisz, 2000; Xu & Shenkar, 2002).[1] First, clearly codified and enforced laws not only reduce transaction hazards, but they also apply broadly to both foreign and domestic market participants. Reliance on a co-ethnic community to facilitate exchange with clients, suppliers, or information providers thus becomes less necessary if the host location has strong laws (Zucker, 1986; Khanna & Palepu, 2000). Second, formal institutions are predicated on certainty to provide stability and predictability (North, 1990). In places that present high uncertainty, their perceived effectiveness declines (Milliken, 1987; Moshirian, 2011). For instance, market participants have greater leeway to engage in opportunistic behavior and renege on contractual agreements when uncertainty is high (Hart, 1995; North, 1984). Such conditions enhance the use of socially based institutional enforcement (Haunschild, Beckman, & Philips, 2004). We thus hypothesize the following: the co-ethnic community will have a significaly stronger positive effect on the location choice of a firm in locations with weak formal laws or high environmental uncertainty than in locations with strong formal laws or low environmental uncertainty.

We tested these ideas using a unique dataset of South Korean banks' entries into Chinese provinces during 1992-2013. This setting is attractive for several reasons. First, we can observe the same bank's investments across provinces to assess whether it values ethnic communities differently according to the formal institutional environment of each province. Second, we can take advantage of a population of ethnic Koreans (the "Chaoxian") that remained isolated from

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[1] This study focuses on institutions at the environmental, or macro, level (e.g. North, 1990). We do not study micro level institutional solutions (entry modes) (e.g. Williamson, 1975). In our empirical setting there is no variation in entry mode because a mix of legal and practical restrictions leads Korean banks to use wholly owned, greenfield investments exclusively (more details in the empirical section).

South Korea between 1949 and 1992. Because South Korean firms were not allowed to invest in China before 1992, the distribution of the Chaoxian throughout China (controlling for post-1992 South Korean immigrants) is reasonably exogenous to the location choices of South Korean banks during the study period. Third, provinces vary substantially in the strength of formal laws and in the degree of environmental uncertainty (e.g. Chang & Wu, 2014). The results support our hypotheses: firms are attracted to places with ethnic communities only when formal laws are weak or when uncertainty is high.

This study adds to research on the role of ethnic communities in foreign expansion specifically and to the literatures on institutions and global strategy more broadly. We offer an institutional lens to explain heterogeneous location choices, by which the ethnic community sometimes influences a firm's entry but sometimes not. This boundary condition provides a common denominator that explains *when* firms value the various benefits (e.g. demand, supply, knowledge) that existing research associates with ethnic communities, and also when the ethnic community itself benefits from transacting with co-ethnic firms—issues that prior work has overlooked. We also highlight an understudied theoretical point: that informal, socially-based means of addressing exchange hazards are 'second best' because their ability to facilitate transactions is limited by the scale and scope of the community. Prior work has focused on explaining whether and why firms rely on social communities (e.g. Rangan, 2000; Tan & Meyer, 2011; Du et al. 2012), whereas we address the boundaries of the benefits of such reliance. Our conceptualization and results also allow us to distinguish between two dimensions that affect foreign firms' perceptions of the reliability of formal institutions: their strength and their stability. Finally, by exploiting a historically unique Korean migration into China, we make an empirical contribution by mitigating concerns of simultaneity in the relationship between ethnic communities and firms' location choices.

THE "CHAOXIAN" COMMUNITY AND KOREAN BANKS IN CHINA

We begin with a description of the research setting because it plays an important role in the theoretical and empirical design of this study. China has a sizable population of ethnic

Koreans or “Chaoxian”—approximately 2.6 million as of 2010 (Kim, 2010) and one of 55 officially recognized minorities. Koreans immigrated en masse in the late 19th and early 20th centuries, in part to escape Japanese colonialism. Migration ceased in 1949 when the Communist party rose to power in mainland China because South Korea recognized the Taiwanese government. Flows of goods, investment, and people remained frozen until 1992 when the two countries normalized diplomatic relationships (Kim, 2003).

During the lengthy isolation from Korea, the Chaoxian worked hard to preserve their ethnic heritage. While not hostile towards the Chinese, they lived in their own villages and did not integrate with the broader society until the 1980s (Kim, 2010). They taught Korean language and culture to their children, and even lived “in houses whose design originated in Korea” (Kim, 2010:4). Until the 1980s, the Chaoxian mainly lived in three northeastern provinces near the Korean peninsula (Liaoning, Heilongjiang, and Jilin). After that period, following a trend in the broader population, they began a steady migration into bigger cities throughout China. “But even in the large cities, the residential area of Koreans was segregated from that of the Han majority.” (Kim, 2010:4). By 1992, when political conditions allowed South Korean investment in China, the Chaoxian maintained a Korean identity and were comfortable with both Korean and Chinese language and culture. This served the interests of South Korean firms entering China as well as the employment and business ambitions of the Chaoxian.

The case of South Korean banks reflects this potentially symbiotic relationship. These banks focus mainly on business and personal loans because foreign banks face barriers to engaging in other banking activities (Yung & Leung, 2012). But lending in China can be unusually risky due to a series of institutional voids in the financial infrastructure (Khanna & Palepu, 1997). The primary hazards revolve around the basic lending process: finding and screening borrowers, collecting payments, and resolving disputes (Korea Trade Investment Promotion Agency, 2011). In our interviews,[2] managers reported that ‘risk management’ was an essential part of foreign investment planning in China because of a lack of market intermediaries like credit rating agencies or effective courts.

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[2] We conducted seven interviews with the credit risk manager of Shinhan Bank in Seoul (HQ) and with the General Manager of Strategy and Planning of Shinhan Bank in Beijing.

When considering entry into different parts of China, Korean banks viewed the Chaoxian as intermediaries that could help lubricate the transactions involved in foreign direct investment (FDI) generally and lending specifically. Ethnic connections were means of gathering information about regulations, business trends, and potentially valuable commercial and political connections. Because of their historically positive relationship with the Chinese government, being one of the minority groups with the highest rate of positions in the Communist party (Kim, 2010), the Chaoxian were useful in this regard. For instance, Koreans in Tianjin facilitated information sharing between the Industrial Bank of Korea and the rest of the local community.

The Chaoxian could also be helpful in various aspects of the lending process. Koreans were seen as an initial crop of borrowers that lowered the risk of foreign entry. For example, Woori Bank's ratio of Korean to Chinese business loans was six to four in 2013 (Byun, 2013), and other banks had similarly high rates of Korean borrowers for individual loans. In addition to serving as direct customers, ethnic Koreans facilitated connections to potential borrowers among the Chinese population (Kim, 2010), such as a Chaoxian entrepreneur referring a Korean bank to its Chinese business partners. Ethnic Koreans offered labor-related reasons to consider entering China. One bank we interviewed reported that Korean employees adapted more rapidly than the Chinese to the management style and norms of the bank, and that Koreans were cheaper to train and monitor.

The Chaoxian community was particularly useful to mitigate repayment risk. Through shared norms and implicit threats of social exclusion, the community helped deter opportunistic behavior among customers and employees. One example is the Association of Koreans in Shenyang, established in 1992 to promote South Korea-China relationships (Paik, Jang, Kim, Jeong, & Seol, 2010). The association organizes community activities, connects Korean businesses and governments with their Chinese counterparts, and fosters a positive image of Koreans in China (Paik et al., 2010). Crucially, members are expected to follow certain norms and codes of conduct—many of them tacit but strong—and are punished if they break the community's trust. For example, the association has stipulated that an individual that damages its reputation will be warned and even expelled from the group (Lee, 2014). This kind of social glue that held the ethnic Korean community together, and in which Korean banks embedded themselves, made it more likely that Korean individuals and businesses would think twice before damaging their reputation by acting in bad faith.

The Chaoxian people themselves could also benefit from the entry of Korean banks through increased borrowing and labor market opportunities. While treated well by the Chinese government, ethnic Koreans were "behind in competitive markets" relative to the Han Chinese (Kim, 2010: 45). For instance, they "had less personal connections… to career opportunities. Even though they started businesses… obtaining customers was difficult" (Kim, 2010: 45). The entry of Korean banks provided the Chaoxian with increased access to personal and business loans. It also afforded job opportunities by working directly for the banks or by providing services as intermediaries between the banks and local constituents (e.g. translators, consultants).

The interactions between the Chaoxian and South Korean banks resemble accounts of other ethnic and national groups in other locations (e.g. Cubans in Miami in Portes et al. 1987). The key issue we address within our context is why, despite this mutually beneficial relationship, the Chaoxian influenced the location choices of Korean banks in some locations but not others.

THEORY AND HYPOTHESES

Ethnic Communities and Foreign Location Choice

The institutional environment in foreign markets often raises barriers that prevent firms from creating or capturing value (Du, Lu, & Tao, 2008, 2012; Flores & Aguilera, 2007). The global strategy literature is thus concerned with mechanisms that allow firms to manage cross-national exchange barriers (Dunning, 1988; Hymer, 1976; Johanson & Vahlne, 1977). In line with this, recent studies have explored how transnational ethnic communities facilitate international expansion. Research has focused on how these communities positively affect the foreign location choices of MNEs (Foley & Kerr, 2013; Hernandez, 2014; Iriyama et al., 2010) and their performance (Hernandez & Kulchina, 2017; Kulchina, 2016). Studies have proposed, though not always directly tested, various benefits driving this relationship. A community of immigrants can serve as a market or facilitate sales to the broader native community, providing demand-related benefits. On the supply side, a firm can hire employees from among the ethnic community. This is frequently cost-effective because firms can manage co-ethnic workers more efficiently (e.g. Kulchina, 2016). Another benefit has to do with knowledge: immigrants can help firms learn about potential new investment locations ex-ante or help firms transfer technological or organizational know-how ex-post (e.g. Kerr, 2008: 20; Wang, 2015).

Less explored is that co-location with ethnic communities may not always be necessary. For example, the Indian firm Dabur found it valuable to locate in some foreign markets with Indian communities but explicitly avoided Indian immigrants in other markets (Dawar & Chandrasekhar, 2009). Similarly, the Filipino restaurant Jollibee benefitted from co-locating with Filipino communities in the Middle East and Asia but questioned its value in the United States (Bartlett & O'Connell, 1998). Because research on ethnic communities and foreign expansion is relatively new, it has primarily focused on documenting whether the ethnic community has a positive main effect. Our objective is to move the literature forward by exploring heterogeneity in the relationship, and in that process, to explain 'dual entry strategies': why may the same firm be influenced by a co-ethnic community in one location more strongly than in another?

The Institutional Role of Ethnic Communities

We argue that the common factor explaining the demand, supply, and information benefits proposed by prior research is that ethnic communities play an institutional role. Later, we will posit that the value of this institutional role diminishes with the strength and stability of formal institutions in a host location.

Institutions are 'the humanly devised constraints that structure political, economic, and social interaction' (North, 1991:1). They reduce hazards that make transactions difficult and prevent the functioning of markets (Xu & Shenkar, 2002). These hazards include unreliable information, unprotected property rights, difficulties in monitoring behavior, and complications in contracting and enforcing agreements (North, 1990; Khanna & Palepu, 1997). The sources of these challenges are varied (Mahoney & Qian, 2013), such as asymmetric information (Akerlof, 1970), ineffective government (North & Weingast, 1989), and uncertainty (North, 1984). Formal institutions—laws and regulations enforced by regulatory bodies—can be effective solutions to transaction problems (North, 1990). They are codified, established, and communicated through widely accepted official channels (Helmke & Levitsky, 2004). But in many emerging markets, these institutions are weak or ineffective, creating "institutional voids" that discourage foreign entry (e.g. Khanna & Palepu, 1997; Du et al. 2008, 2012; Mair, Marti, & Ventresca, 2012).

One way to overcome such institutional deficiencies is to rely on a trusted community that plays an informal but functionally similar role to institutions (e.g. Tan & Meyer, 2011; Du et al. 2008). Informal institutions are "embodied in customs, traditions and codes of conduct" (North, 1990: 6). These informal rules are typically fostered and enforced through interpersonal relationships (Zucker, 1986). Several studies, such as Geertz's (1978) ethnography of a bazaar economy or Greif's (1989, 1993) history of 11th century Maghribi traders, have demonstrated that community norms can be functionally equivalent to formal governance structures. Granovetter's (1985) notion of embeddedness has given rise to an entire stream of literature demonstrating that social control embodied in trust, repeated exchange, and network structures helps parties deal with exchange hazards (Coleman, 1988; Gulati, 1995; Zucker, 1986). The key for these social mechanisms to work is that those involved in the community must have a strong sense of identity and belonging to the group and internalize its norms, thus experiencing a real sense of loss if 'punished' by the group (Greif, 1993; Portes & Sensenbrenner, 1993).

Transnational ethnic communities, like the Chaoxian, meet these requirements. Co-ethnicity is often a powerful source of social similarity, identity, and behavioral norms (Hernandez, 2014; Madhavan & Iriyama, 2009). Community norms, such as reciprocity and solidarity, effect a sense of commitment to and trust towards co-ethnic members (Kalnins & Chung, 2006; Adler & Kwon, 2002; Portes, 1998). Co-ethnicity puts normative pressure on members to cooperate because the community can take collective sanctions against violators

(Coleman, 1988; Greif, 1989, 1993). This kind of 'enforceable trust' is essential for ethnic communities to have the strength to effectively govern economic exchanges, and becomes especially powerful when the ethnic group has access to few resources outside of the ethnic community (Portes & Sensenbrenner, 1993).

The example of the Chaoxian and the entries of South Korean banks into China illustrates the potential benefits of ethnic communities in regulating transactions related to demand, supply, and information. To connect with prior research, we begin with the baseline expectation that ethnic communities in China on average positively affect the location choices of Korean banks.

> *Baseline: Ceteris paribus, the larger the size of an ethnic community in a location, the greater the likelihood that a bank from a country of the same ethnic origin will invest in that location.*

The Limits of Ethnic Communities and Dual Entry Strategies

Our core proposition is that the institutional role played by ethnic communities is valuable, but not equally so across locations, because it is limited by the sphere of social influence of the community. We concur with prior research that communities can play a functionally equivalent role to institutions through social norms and enforcement. But we move research forward by probing the boundaries of relying on such an informal institutional role. The power of the community to foster and enforce norms and solidarity depends on interpersonal relationships (Zucker, 1986). By definition, the scale and scope at which those relationships can exert social pressure is capped by the social and business networks of the community. Governance by a community does not exert influence over out-group members because they do not identify with the group and thus are not loyal to it. Because ethnic communities are relatively small, their influence in mediating transactions that foster demand, supply, and information transfer is truncated. For a potential foreign investor, this places limits on projections of market size and the potential scope of operations in a location where the firm plans to embed itself with a co-ethnic community.

In contrast, formal institutions are designed to offer and enforce a set of rules that apply to all actors within a jurisdiction. Zucker (1986) argues that the U.S. had to historically transition from interpersonal to impersonal exchange mechanisms to accommodate the increasing size of the market. And North (1990) shows that formal institutions facilitate a greater amount and complexity of economic exchange. We posit that these considerations will lead foreign firms to follow a dual entry strategy: if formal institutions are unreliable in the host location, the co-ethnic community will be a significant predictor of entry; but if reliable formal institutions are available, the community will be less likely to play a significant positive role in the entry decision. To be clear, we do not mean that firms will be hurt by the ethnic community in places with reliable formal institutions—only that firms prefer to rely on formal institutions where they are available, making the informal institutional role of ethnic communities 'second best.'

Hypotheses

If our core proposition is correct, the main effect expressed in the baseline hypothesis should be significantly weaker the greater the perceived reliability of the formal institutional environment faced by firms choosing across locations. The reliability of institutions is a function of two factors: strength and stability (North, 1984; Scott, 1995; Levitsky & Murillo, 2009). Strength captures the quality of rules (do they meet a sufficient threshold of assurance?) as well as the ability of the government to enforce them (will they be respected by all parties?). Stability captures the likelihood that the rules currently in place will remain as such for the foreseeable future (are they predictable?). We consider the strength of formal institutions first (H1) and then their stability (H2a and H2b). While the core proposition is fairly general, we develop our hypotheses with the context of Korean banks entering China in mind. Table 1 offers a sketch of the arguments as they pertain to that context and to the demand, supply, and knowledge mechanisms proposed by prior research.

Strength of Formal Institutions. One of the most common indicators of institutional strength is the quality of property rights laws (North, 1990; Levitsky & Murillo, 2009). In emerging markets such as China, the strength of such laws differs considerably across provinces

(Du et al., 2008; Li et al., 2009). While it may appear that a strong central government would lead to undifferentiated legal institutions across provinces, in reality local governments are given broad guidelines and implement policies with significant heterogeneity (see Chang & Wu, 2014 and Li et al., 2009). For foreign banks in China, in provinces with weak property rights laws the assets (e.g. collateral) of potential borrowers are not well protected by courts and consumer regulations. This makes potential clients less likely to borrow, deterring foreign banks from entering. Korean banks considering China could partially overcome this problem by catering to the Chaoxian as borrowers. The enforceable trust we discussed earlier allowed the Chaoxian (and their associates) to feel safer borrowing from a co-ethnic bank. Further, the presence of a co-ethnic bank increased borrowing opportunities because local (Chinese) banks preferred lending to the Han majority than to ethnic minorities or foreign nationals (Kim, 2010).

Co-locating with ethnic communities also creates benefits on the labor supply side. Recruiting and training workers is challenging when property rights are weak because firms are wary of unproductive hires or individuals that may not be loyal to the firm. And workers are fearful of being treated unfairly without recourse to strong courts and labor laws. Hiring within the ethnic community offers a way around this problem because both parties could harm their reputation if they act opportunistically. Finally, doing business within the ethnic community can help firms overcome knowledge-related problems in locations with weak property rights. Using co-ethnic intermediaries to obtain information about the foreign market and to transfer business practices to that market reduces the concerns of investing in otherwise risky places. This also creates income-generating opportunities for the individuals offering these intermediary services.

But in a location with strong property rights, banks do not need these community assurance mechanisms as much—they can rely on clearly defined and enforced rules. These rules are more broadly applicable and reliable since they are enshrined in laws, which allows the firm to govern transactions with both native and co-ethnic exchange partners. The same applies to members of the ethnic community itself, who can have access to more lenders and employers if they transact with both ethnic and non-ethnic banks. Hence, impersonal formal institutions help foreign firms expand more widely because parties with no ethnic linkages to Korean banks, which would have been deterred from transacting before, can rely on the governance role played by formal institutions to do business with these foreign firms (Greif, 1993; Johnson et al., 2002; Peng, 2003). Per our main proposition, these considerations should lead to the following:

> *Hypothesis 1: The effect of the size of an ethnic community on the location choice of a bank from a country of the same ethnic origin is weaker (less positive) in locations with strong property rights laws than in locations with weak property rights laws.*

Stability of Formal Institutions. At their core, institutions are designed to provide stability (North, 1990; Scott, 1995; Henisz, 2000). Regulations set expectations that ensure predictability and repeatability in resource exchanges. For banks, these are essential to activities like borrower search, screening, and collections. The perceived stability of formal institutions is influenced by the uncertainty the firm experiences in a location. Uncertainty calls into question the effectiveness of existing institutions because it signals that they are not able to reduce exchange hazards (e.g. Dess & Beard, 1984; North & Weingast, 1989; Henisz, 2000; Milliken, 1987). We provide hypotheses for two sources of uncertainty relevant to foreign banks in China: macroeconomic instability and lending uncertainty.

During periods of macroeconomic uncertainty, market participants have latitude to engage in opportunistic behavior because it is harder to measure performance as prices and costs change (North, 1984). Incentives to renege on contractual terms increase as conditions change because economic volatility can render the assets initially committed to a contract obsolete, fundamentally changing the distribution of value between parties (Williamson, 1975; Hart, 1995). When the stability of formal institutions is in doubt, foreign firms are discouraged from expanding into the market because of greater risks in supply, demand, and information transactions. The institutional role of ethnic communities can be valuable in ameliorating these consequences. When volatility in a market is broadly shared, actors tend to rely on relationships with those that are similar (Sjostrand, 1992). For example, Beckman et al. (2004) demonstrate that firms tend to reinforce alliances with partners they know well when faced with systematic uncertainty. And Geertz (1978) showed that traders relied on repeated transactions with trusted partners to counteract uncertainty. Similarly, we expect that potential foreign entrants and members of the co-ethnic community will rely on transacting with each other when the reliability of institutions in the host location is in question.

As we argued before, however, this reliance on the community is functionally useful to deal with uncertainty but places limits on the scale and scope of transactions a foreign firm and individuals in the community can conduct in the host market. Indeed, Beckman et al. (2004) imply that relying on a known circle of exchange partners in uncertain times limits the ability of firms to expand their exchange relationships. So firms—at least those seeking to grow—would only rely on the institutional role of ethnic communities when forced by uncertain conditions. In contrast, when uncertainty is low firms can rely on the perceived stability of formal institutions to facilitate a greater scale and variety of transactions with both native and co-ethnic individuals. We thus expect the following pattern, consistent with the core proposition:

> *Hypothesis 2a: The effect of the size of an ethnic community on the location choice of a bank from a country of the same ethnic origin is weaker (less positive) in locations with low macroeconomic uncertainty than in locations with high macroeconomic uncertainty.*

The other source of instability we consider is specific to the banking industry: lending uncertainty. Interest rates reflect the price of lending risk (e.g. Elyasiani & Mansur, 1998; Saunders & Schumacher, 2000). Hence they embody the hazards involved in the basic steps of the lending process—customer screening, loan collections, and dispute resolution. When the variability in interest rates on loans in a location is low (importantly, after accounting for basic economic factors, the distribution of economic activity across industries, and firm attributes), it suggests that lenders generally agree on the risks posed by borrowers. This generates low uncertainty for potential new entrants into the location. But when lending uncertainty is high in a location, it signals that transaction hazards are hard to predict and price. This generates high levels of lending uncertainty for potential foreign investment in the banking sector.

In the absence of a mechanism to deal with lending uncertainty, potential foreign entrants will interpret the volatility of rates in the market as a barrier to entry. They expect that finding and monitoring borrowers will be costly because uncertainty calls into question the reliability of formal financial institutions. Further, when lending uncertainty is high members of ethnic communities can have a relatively harder time than natives securing loans and employment from local banks, because uncertainty enhances the tendency to discriminate against out-group members (e.g., ethnic locals and immigrants) by in-group (native) firms (Tajfel, 1970, 1982).

Targeting a well-defined and trusted community of borrowers can be a means of reducing uncertainty for banks that have access to that community, such as Korean banks within the Chaoxian community. The social enforcement of the community is valuable in borrower screening and loan collections (demand), hiring and monitoring potential employees (supply), and obtaining and transferring information (knowledge). Yet for the same reasons we argued before when discussing macroeconomic uncertainty (H2a), reliance on the community to govern transactions becomes less necessary in places that do not present uncertain conditions for foreign banks, as the core proposition suggests. Thus,

> *Hypothesis 2b: The effect of the size of an ethnic community on the location choice of a bank from a country of the same ethnic origin is weaker (less positive) in locations with low lending uncertainty than in locations with high lending uncertainty.*

DATA AND METHODS

Empirical Setting

An ideal setting to test our hypotheses should have an exogenous distribution of ethnic communities across location options, meaningful variance across locations in the strength and stability of formal institutions, and revealed location choices for multiple parent firms across multiple location choices. The expansion of Korean banks into China meets these criteria.

First, one of the main challenges in estimating the effect of ethnic communities on location choice is that the relationship could be spurious. The ideal experiment would require random assignment of immigrants to provinces before banks make location choices (Card, 1990).

The geographic distribution of the Chaoxian, who were isolated from South Korea between 1949 and 1992 (as detailed earlier), is relatively exogenous to the socioeconomic factors driving South Korean banks' location choices post-1992. Hence, we use the number of Chaoxian in each province as our measure of ethnic communities, while controlling for the number of post-1992 South Korean immigrants and non-banking firms, to mitigate endogeneity concerns.

Second, Chinese provinces exhibit heterogeneity in strength of laws and in environmental uncertainty. The central government delegates implementation of specific regulations, rules, and standards to regional governments and, as a result, formal institutions vary considerably across regions (Du et al., 2008; Li et al., 2009). In addition, variation in socioeconomic attributes, in the amount of contact with foreign enterprises, and in geographic characteristics creates heterogeneity in the extent to which provinces exhibit macroeconomic and lending uncertainty.

Besides these two central features, foreign banks were limited from partnering with or acquiring local banks during the study period. Foreign banks had to have higher loan reserves than local ones, and the law prohibited controlling acquisitions of Chinese banks (Meng, 2009; Yung & Leung, 2012). While partnerships with local banks were technically legal, a series of cultural, employment, and capital flexibility considerations made joint ventures unworkable. Hence foreign banking operations were predominantly established through greenfield investment (Yung & Leung, 2012). All the Korean investments in our sample occurred through this method. This creates an empirical advantage: we do not have to deal with the endogenous counterfactual of firms using entry modes as substitutes or complements to reliance on ethnic communities as a means of dealing with institutional deficiencies across locations (Shaver, 1998).

Third, our dataset represents a comprehensive account of South Korean banks' direct investments in Chinese provinces from 1992 until 2013. During this period, eleven Korean banks made 82 unique investments in 11 provinces.[3] We collected information about the timing and location of investments from the bank's web pages, the Financial Supervisory Service in Korea, the Export-Import Bank of Korea, the Korea Trade Investment Promotion Agency (KOTRA), and banks' annual reports published in both Korea and China. Our sample is consistent with He and Yeung's (2011) study of banking FDI in China. While 82 investments by 11 banks appear to be a small sample, they represent the entire population of Korean banking investments in China. The sample size mainly affects statistical power, and at worst makes it harder for us to find support for the hypotheses. Another concern is that few banks are making many investments, so location choices are serially and spatially correlated for the same bank. We discuss below how we address this through the construction of the choice set and the use of conditional logit estimator, which effectively accounts for parent firm fixed effects across time periods.[4]

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[3] There is one investment in Jilin during this period that we excluded because data on lending uncertainty and industry distribution are missing for that province. The results are almost identical when we exclude the lending uncertainty and industry distribution variables and include Jilin in our estimations.

Measurement

Dependent variable. We created the indicator $invest_{ijt}$, coded as one if a Korean bank made an investment i in province j in year t, and zero otherwise. For each realized investment, the choice set includes 16 location options, which we selected as follows. China is officially organized into 22 provinces, four municipal cities (Beijing, Tianjin, Shanghai, and Chongqing), and five autonomous regions (e.g., Inner Mongolia and Tibet). Only 11 of these locations received investments from Korean banks during 1992-2013. Five more provinces (Fujian, Hainan, Shaanxi, Yunnan, and Zhejiang) received investments from non-Korean foreign banks. Since these provinces have Chaoxian communities, they are feasible but unrealized choices for Korean banks. Our approach is consistent with prior research (e.g., Belderbos, Olffen, & Zou, 2011). The online appendix shows the investments of Korean banks by province over time.

If a bank made multiple investments across different provinces in the same year, the investments for that year were included in the same choice set to account for within-year correlation across choices (Alcácer & Chung, 2014). Investments in different years were included in different choice sets. Hence, each choice set is defined by a firm-investment year. There were 45 instances in which firms made one investment in a year, and 16 in which firms made two or more in the same year (37 investments). The sample size is 976 (61 firm-investment years * 16 provinces). All other variables are lagged by a year relative to the dependent variable.

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[4] Another concern may be that, given the power of business groups (chaebols) in Korea, banks are affiliated with specific groups and enter China to serve group companies or have little discretion in where to locate across the country. This is not the case. Because of laws regarding the separation of financial and industrial capital, the banking sector functions independently. We verified this in an interview with a Korean bank manager (February 10, 2015).

Ethnic community. We used the count of *Chaoxian*—those that moved to China pre-1949 and their descendants—by province and year to capture the size of the Korean ethnic community (in the estimation, we used standardized counts to reduce multicollinearity). We collected these data from two sources: for 2003, 2005, 2007, 2009, 2010, and 2012 from the Korean Ministry of Foreign Affairs, and for 1990, 2000, and 2010 from the Chinese Census. For 2010, we primarily used the Korean data because both sources showed similar numbers, with the exception of a few provinces for which the Census offered a more reasonable number. We replaced missing data with counts from the closest year (e.g., using the 2010 count for 2009 and 2011), following prior research (Chang & Park 2005). The online appendix shows the data from the two sources. The results are robust to using various combinations of the two, as shown later.

Strength of Formal Institutions: Property Rights Laws. We used data from the marketization index developed by Fan, Wang, and Zhu (2011), which measures the strength of the institutional infrastructure supporting markets (province-specific and time varying). The index has been used in prior research (e.g. Chang & Wu, 2014; Du et al., 2008). One of its main components captures the strength of laws and market intermediaries protecting buyers and sellers. This component contains the following: protection of intellectual property rights (based on patenting activity, Item 5c), protection of producers' rights (Item 5b), protection of consumers' rights (Item 5d), and the presence of intermediaries for law enforcement (accountants and lawyers) (Item 5a1). We created the variable *legal* by obtaining the average of these measures (results are the same if we sum the components). Since the index is available for 1997-2009, we used the 1997 values for 1992-1996 and 2009 values for 2010-2013. This extrapolation is reasonable because the rank ordering of provinces is very stable over time (see online appendix). The results are robust if we exclude early and late years, as discussed later.

Stability of Formal Institutions: Indicators of Uncertainty. To measure *macroeconomic uncertainty*, we first regressed gross regional product (GRP, logged) on its lagged value and on a linear time trend recursively from 1986-2012 (i.e., using the 1986-2009 data to predict GRP for 2010, the 1986-2010 data to predict GRP for 2011, and so on). Our indicator of *macroeconomic uncertainty* is the root mean squared error of the regression (Favero et al., 1994; Ghosal & Loungani, 2000). This measure is region-specific and time varying.

The other indicator of institutional stability is *lending uncertainty*. We measured it as the standard deviation of the interest rate paid by all firms in the province the year before the investment is observed (Saunders & Schumacher, 2000). We obtained data on the interest rate paid by all firms in China with sales of more than 5 million yuan, collected by the Chinese National Bureau of Statistics annually during 1998-2007 and made available by Aghion et al. (2015). To ensure that this measure captures transaction hazards rather than variation in economic fundamentals, we controlled for the distribution of industries across provinces as well as other macroeconomic factors, as detailed below. As with *legal*, we extrapolated values for the pre-1998 and post-2007 years. The rank ordering across provinces for lending uncertainty is also strongly stable over time (see online appendix), and later we discuss how the results are robust if we exclude early and late years.

Controls. We included the number of *Korean immigrants* (those that moved post-1992) by province per year to better isolate the effect of the Chaoxian ethnic community. The location of Korean immigrants is likely endogenous to the concurrent investments of co-national banks and other businesses, because both were driven by business opportunities in China. Further, the immigration patterns of Korean immigrants could be a function of the presence of Chaoxian, and the locations of Chaoxian post-1992 may be driven by the presence of South Korean immigrants or firms. Controlling for Korean immigrants thus creates a stringent test of our hypotheses, because any effect of *Chaoxian* has to be net of these endogenous factors embodied by *Korean immigrants.* We collected the Korean immigrant data, available for 2003, 2005, 2007, 2009, 2010, and 2012, from the Korean Ministry of Foreign Affairs.

We expect that banks with investment experience in a province will more likely re-invest. *Firm experience* captures the cumulative number of branches a Korean bank has established in each province prior to the current investment year. We control for the gross regional product (*GRP*) *per capita* in each province by year to capture the attractiveness of the market for foreign banks (Focarelli & Pozzolo, 2005). High innovative activity signals the availability of investment opportunities and attracts foreign capital (Iriyama et al*.*, 2010). We thus added *high tech firms*, measured as the natural log of the number of high tech firms in each province by year, using data from the China Statistical Yearbook.

Investment by other foreign banks indicates favorable market opportunities and potential for agglomeration economies (Li, 2008; Tan & Meyer, 2011). We thus included *foreign banks*, measured as the log of one plus the number of foreign banks located in each province. The data came from the *Almanac of China's Finance and Banking* (2007). As the Almanac only covers 1992-2006, we substituted missing data with data from the closest year. The presence of other Korean banks could create greater competitive intensity (Baum & Mezias, 1992), or the agglomeration of co-national banks could bring informational, institutional, and other benefits to entrants (Tan & Meyer, 2011). To capture this, we included *Korean banks*, measured as the natural log of one plus the number of Korean banks in each province. Korean banks may also invest in a region if a major client has operations there (Qian & Delios, 2008). We accounted for this "follow the client" phenomenon by including *Korean investment*, measured as the natural log of Korean FDI in each province and available from the Import Export Bank of Korea. These various agglomeration factors also account for other means of overcoming institutional constraints in foreign markets (e.g. Shaver et al. 1997; Tan & Meyer, 2011; Du et al. 2008).

We included *industry distribution* to control for the variation in industry output activity across provinces, which helps account for the natural variation in interest rates due to economic fundamentals, as discussed earlier. We first calculated the total output for each industry by province annually based on data from the Chinese National Bureau of Statistics during 1998-2007. We then computed a Herfindhal-Hirsch measure of industry output distribution at the province level. We replaced missing data with data from the closest year. We also controlled for *foreign employment,* an inverse measure of the legitimacy of foreign firm activity in a province (Li et al*.,* 2009). We measured *foreign employment* as the ratio of workers employed by foreign firms relative to total employment in a province by year, using data from the *China Statistical Yearbook*, 1992–2012. Finally, we included a yearly count of state-owned enterprises (*SOEs*) by province because SOEs often receive favorable treatment, including beneficial loan terms, which could affect the location calculus of foreign banks (Cull & Xu, 2003).

Model

We tested our hypotheses using the conditional logit estimator (Chung & Alcacer, 2002; Belderbos *et al.,* 2011; Chang & Park 2005; Tan & Meyer, 2011). This model estimates the conditional probability that a province is chosen from among a set of alternative locations, and is specified as follows:

$$P_{i,j,t} = \frac{\exp(\beta X\, i, j, t-1)}{\sum_{k=1}^{m} \exp(\beta X\, i, k, t-1)}$$

where $P_{i,j,t}$ is the probability of Korean bank *i* investing in region *j* in year *t; X* is a vector of independent and control variables at time *t-1*; and *k=1,….m* is the set of alternative locations. *β*, estimated through the maximum likelihood method, indicates whether an explanatory variable significantly affects the probability that a province will be chosen relative to the value of the same variable for all the other provinces in the choice set. All the variance in this estimation is across attributes of the options (provinces), while all factors that do not vary across options are directly accounted for (akin to a fixed effect). Hence, attributes of the chooser (firm) or year-specific effects (e.g. laws applying to all of China) are directly 'conditioned out' in the estimation (see Greene, 2010). This helps account for many unobserved factors that would be problematic in unconditional estimators (e.g. a regular logit).

The conditional logit presents some challenges in interpreting coefficients and estimating the interaction effects predicted by our hypotheses, which we deal with as follows. First, the coefficient of β cannot be interpreted as a marginal effect like in a linear regression. Rather, we calculate the average elasticity of the probability of location choice with respect to the independent variable as $[(M-1)/M]*\beta=(15/16)*\beta$, where M is the total number of choices (see Belderbos et al., 2011; Head et al., 1995).

Second, as with other non-linear models, the sign and significance of interaction terms may incorrectly reflect the real effect. While post-estimation techniques to simulate interaction effects have been developed for logit models (e.g. Ai & Norton, 2003), these do not apply to conditional logit estimators. We thus follow the approach of splitting the sample at meaningful levels of the moderating variable (e.g. *legal* in the case of H1), estimating the main effect of the variable of interest for each subsample, and comparing the magnitude of the effect across subsamples (see Hoetker, 2007; Alcacer & Chung, 2007; Belderbos et al*.,* 2011; Hernandez, 2014; Tan & Meyer, 2011). This approach has two distinct advantages in non-linear models. First, it does not assume that unexplained variance is identical between the subgroups being compared. In our context, it is unlikely that unobserved variance is equal across strong and weak institutional environments. Second, splitting samples allows for the impact of non-interacted variables to differ across the subsamples, leading to consistent within-sample estimates.

To statistically test the difference of the coefficients across subsamples, we jointly estimated the two equations for each subsample using seemingly unrelated estimation (SUEST in Stata). The joint estimation allowed us to conduct a Wald test to compare the effect sizes across subsamples. One challenge with the split sample approach is that the magnitudes of coefficients across subsamples are hard to compare because of uncommon variance across groups (Hoetker, 2007). To get around this, we followed best practice by scaling the coefficients of *Chaoxian* by *firm experience* (or another meaningful covariate) within each equation to present comparable magnitudes (see Hoetker, 2007 and our footnote 6 for more detail).

RESULTS

Table 2 shows the descriptive statistics and correlations. Several variables are correlated at high levels, which is a function of how the sample is constructed: a small number of firms and location attributes are repeated across choice sets (not unusual in datasets with repeated observations). The highest variance inflation factor is 6.51 and the average is 3.05, all below the recommended threshold of 10 for multicollinearity (Chatterjee et al. 2000). Most importantly, the coefficient estimates are stable across a myriad of specifications. GRP correlates highly with many variables (particularly *legal* and *foreign employment*) because it is an umbrella indicator of economic health that reflects the general attractiveness of a location. We attempted variations of models including and excluding GRP and the results remain robust. Similarly, we ran various models including or excluding key variables or other highly correlated controls to ensure that the effects did not systematically change (available upon request). *Chaoxian* and *Korean immigrants* are standardized to prevent collinearity, since they are correlated when unstandardized.

Tables 2 and 3 Here

Table 3 summarizes the primary results. Model 1 includes the control variables. In Model 2, the coefficient of *Chaoxian* is positive and significant ($p < 0.05$, all hypothesis tests reported as one-tailed), consistent with the baseline hypothesis. We calculated the average elasticity of the probability of investment with regard to *Chaoxian* to gauge the estimated effect of ethnic communities on Korean banks' location choice. The coefficient of 0.414 implies that if *Chaoxian* in a region increases by 10 percent, the probability of entering a region increases by $15/16*0.414*10 = 3.88$ percent relative to other regions.

The comparison across regions with different *legal* strength appears in Models 3-4 of Table 3. We split the sample of 82 investments in two based on the median value of *legal* during 1992-2013 (Alcacer & Chung, 2014). The coefficient of *Chaoxian* is negative and insignificant ($p = 0.245$) in Model 3 but positive and significant in Model 4 ($p = 0.0226$). A Wald test after joint estimation of these models indicates that the difference in the coefficient of *Chaoxian* across the subsamples is statistically significant ($p = 0.0170$, one-tailed). To account for unequal variance across subsamples, we scaled the coefficients by firm experience. The impact of *Chaoxian* on location choice relative to a bank's prior investment experience in that region is substantially higher in regions with strong laws (0.610) than in regions with weak laws (-1.213). These scaled coefficients marginally differ from each other based on a Wald test (p = 0.0604, one-tailed).[5]

We compare across locations with high and low macroeconomic uncertainty (split by the median) in Models 5-6, respectively. The effect of *Chaoxian* is positive and significant in provinces presenting high economic uncertainty (p = 0.00518) but negative and insignificant in places with low uncertainty (p = 0.257). The effect relative to a bank's prior investment experience differs substantially in regions with high (1.002) and low macroecnomic uncertainty (-1.408). The Wald test indicates that the difference across the subsamples is statistically significant for both the unscaled (p = 0.00307) and the scaled coefficients (p = 0.0584).

Finally, we compare the effects of ethnic communities across regions with high and low lending uncertainty (according to the median) in Models 7-8, respectively. The coefficient of *Chaoxian* is positive and significant in Model 7 (p = 0.00807), but negative and insignificant in Model 8 (p = 0.215). The effect size relative to a bank's prior investment experience differs substantially in regions with high (1.087) and low lending uncertainty (-8.644). The Wald test reveals that the difference in coefficients across the subsamples is statistically significant for both the unscaled (p = 0.0511) and the scaled coefficients (p = 0.0920). Overall, the subsample comparisons support hypotheses 1, 2a, and 2b.

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[5] We consulted various sources about the appropriateness of generating test statistics based on ratios of estimated coefficients (each with its own confidence interval). There is no consensus on this issue, as reflected by the different opinion among two econometricians we consulted and prior published studies. Some studies test the difference based on unscaled coefficients (e.g. Penner-Hahn & Shaver, 2004; Alcacer & Chung, 2014) and others based on scaled coefficients (e.g. Train, 2003; Lee, Hoetker, & Qualls, 2015). Ultimately, we report both tests for completeness and reach similar conclusions, though the p-values exhibit different significance levels in some cases. Allison (1999) suggests a third approach: testing for the equivalence of unobservable heterogeneity across subsamples. However, that approach is based on unconditional logit models.

Dual Entry Strategies[6]

We used the 'dual entry strategy' notion to express that firms may rely on different criteria when entering locations with weak vs. strong formal institutions. The results are consistent with this idea as it pertains to ethnic communities. The split sample approach allows us to further probe how the dual strategy may be reflected in other variables. One interesting pattern is that the presence of other Korean banks discourages entry into provinces with unreliable formal institutions (table 3, models 4, 5, and 7) but not in provinces with reliable formal institutions (models 3, 6, and 8). These differences are statistically significant for *legal* ($\chi^2(1) = 3.402$, $p = 0.0326$, one-tailed) and for *macroeconomic uncertainty* ($\chi^2(1) = 4.877$, $p = 0.0136$, one-tailed). At first this seems counterintuitive, since same-industry agglomeration may help individual banks learn and legitimize the collective activities of Korean banks in difficult environments (Du et al. 2008). But the aversion makes sense considering that Korean banks compete with each other. Consistent with our core idea, the Chaoxian population is small and cannot support many competing, undifferentiated Korean banks. These competitive mechanisms seem to only apply within industry: the agglomeration of Korean firms (non-banks) does not discourage entry in provinces with unreliable institutions. And it seems to even encourage it in locations with weak property rights laws (table 3, models 4 and 8).

Another pattern is that prior experience is an especially strong predictor of repeated investment in provinces with unreliable formal institutions (models 4, 5, and 7). The differences in magnitude compared to provinces with strong institutional conditions (models 3, 6, and 8) are marginally significant for *legal* ($\chi^2(1) = 1.699$, $p = 0.0962$, one-tailed) and significant for *macroeconomic uncertainty* ($\chi^2(1) = 5.264$, $p = 0.0109$, one-tailed). This suggests that the payoff to prior experience is higher in places with deep institutional voids, where operating is harder.

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[6] We thank an anonymous reviewer for the 'dual entry strategy' label, and the same reviewer and the editor for the idea to include this section in the paper.

We present the results as post-hoc tests. But they are interesting because they put the role of ethnic communities in broader context, as one of multiple factors that firms weigh differently across provinces with reliable vs. unreliable formal institutions.

Robustness tests

Our sample includes 55 initial investments and 27 repeated investments. The conditional logit model accounts for banks' overall experience in China by holding chooser attributes constant, and we control for experience in each province to account for whether an entry is a first-time or repeated investment. We also ran models focusing on the initial investments only, in part to rule out serial correlation. Table 4 shows that the results are robust.

Prior studies have used both count (e.g., Iriyama, Li, Madhavan, 2009) and ratio (e.g., Hernandez, 2014) measures of ethnic communities. We report the results using ratio measures (number of Chaoxian per thousand) in Table 5 (full sample) and Table 6 (initial investments only). The results are robust.

***Tables 4-6 Here ***

We performed other analyses not shown here but available upon request. Our primary models use robust standard errors; in additional tests, we cluster errors by parent bank and the findings are stable.

We did not have data covering all years for *legal* and *lending uncertainty*. Earlier we discussed how we imputed values for years in the early 1990's and late 2000's for the main analysis. To ensure that this approach did not bias the results, we re-estimated our models to test H1 (*legal*) and H2b (*lending uncertainty*) by using only the time periods for which we had data for these two measures. Both hypotheses were supported with the reduced samples.

We conducted tests using alternative sources to count the number of *Chaoxian*: (1) only China Census data, (2) only Korean Ministry data, or (3) various mixes of the two (e.g. prioritizing data from the Chinese Census unless Korean Ministry data were available, or vice versa). All variations lead to results that offer the same conclusions as already reported.

If our arguments about ethnic communities playing an institutional role are driving the results, the effects we observe should be confined to co-ethnic firms. That is, they should not provide substantial benefits to firms from countries of other ethnicities. To test this assumption, we ran a placebo test by regressing the number of non-Korean foreign banks by province on our measure of *Chaoxian* people plus all the controls. We found no significant impact of *Chaoxian* on non-Korean banks' location choices.

In our primary models we used the same choice set (16) for all banks and years. This is the only way to calculate average marginal effects from conditional logit models; if the options differ across firms or years, they cannot be estimated (Greene, 2010). One concern from this may be the inclusion of irrelevant options. But including irrelevant options is not a problem as long as the assumption of independence of irrelevant alternatives (IIA) holds: that the ratio by which a firm favors one option over another (e.g. 2:1 for Shanghai vs. Beijing) does not change if a third option (e.g. Liaoning) is included or excluded. We see no reason why such transitivity of preferences would be violated in our case. Nevertheless, we conducted additional analyses by adding options to the choice set over time as foreign (Korean or non-Korean) banks invested in provinces for the first time. This procedure primarily reduces the number of locations in a choice set for early years (1992-2006) when there are relatively few investments. The results are fully consistent with those reported here.

A few influential provinces could drive the results because they either receive most investments or have the most Chaoxian individuals. To get at this, we dropped Beijing and Shanghai from our choice set, which accounted for more than 39 percent of all investments by Korean banks. In a separate analysis, we excluded the Northeastern provinces in which the majority of ethnic Koreans are concentrated (Heilongjiang and Liaoning). In both analyses the results offer support for our hypotheses.

The regulatory environment in China has changed substantially during 1992-2013, best reflected by accession to the World Trade Organization (WTO) in 2002. In any given year, the conditional logit estimator accounts for conditions that apply to all of China. To check for a post-

WTO change in how ethnic communities affected foreign location choice, we confined our analysis to data since 2002 and obtained fully consistent results.

DISCUSSION

Our goal was to provide an explanation for the relationship between ethnic communities and the foreign location choices of co-ethnic firms that accounts for heterogeneity across locations for the same firm (i.e. dual entry strategies). Recent studies have documented that ethnic communities encourage international investment (Foley & Kerr 2013; Hernandez, 2014; Iriyama et al*.,* 2010; Kerr, 2008; Madhavan & Iriyama, 2009; Saxenian & Hsu, 2001). These studies have argued that immigrant communities providing access to a combination of demand, supply, and knowledge benefits drive this positive relationship. Yet the literature has not yet accounted for cases in which the same firm chooses one location with strong immigrant communities but not in another. To solve this puzzle, we advanced that ethnic communities function like informal institutions for firms of the same ethnicity. Our core proposition was that the value of this informal institutional role declines significantly the more reliable the formal institutional environment in the host location, because of scalability limits to the benefits of relying on interpersonal governance.

The institutional lens we adopt offers a common explanation for the various benefits of co-location with ethnic communities discussed in prior research (demand, supply, and knowledge). The observation that communities can play an informal institutional role is not novel per se, as other studies on both ethnic groups (e.g. Portes and Sensenbrenner, 1993) and agglomeration of same-country firms (e.g. Tan & Meyer, 2011; Du et al. 2008) have suggested that co-nationality can facilitate economic exchange via social norms. We view that work as focusing on *whether* firms rely on communities in foreign markets. We control for these agglomeration-related factors in our study. Our contribution comes from asking two follow-up questions: What are the limitations of reliance on co-ethnic communities? Can those limitations explain *when* and *where* ethnic communities impact firms' foreign location choices?

Our core argument is that reliance on interpersonal exchange within the community limits the scale of possible transactions for both firms and members of the community. This idea is important for institutional theory because much of the debate regarding formal and informal institutions has focused on whether they are substitutes or complements (e.g. Helmke and Levitsky, 2004). This debate has offered mainly functional arguments. Proponents of complementarity argue that each type of institution is limited because contracts (formal institutions) are always incomplete and relational governance (informal institutions) is hard to enforce (e.g. Poppo and Zenger, 2002). Hence both play distinct but complementary roles. Proponents of substitution imply that both are functionally equivalent and thus override one another. We are agnostic about whether reliance on social mechanisms or formal structures is effective or whether one is functionally superior to the other. Instead, we suggest that the relevant factor is one of limited scalability—how many transactions does each mechanism make possible for a firm trying to enter a market? Both may be functionally identical or functionally distinct, but the scalability of formal institutions makes them "first-best" when they are available. This is especially salient to a potential foreign investor trying to participate in as many of the demand, supply, and information transactions as possible in the host location.

This preference for formal over informal governance mechanisms has intriguing implications for global strategy research. If the arguments we have presented hold, the preference for formal institutions should apply to firms that seek growth because the scalability of the governance mechanism is appealing for activities requiring greater scale or complexity. This applies to our case because Korean banks are motivated by access to as large a market as possible in China. When scalability is not important, such as when the goal of the foreign investment is not growth-related (e.g. R&D), we may be less likely observe that formal institutions predominate. Future research could extend our study by exploring whether ethnic communities exhibit varied influences across foreign investments driven by multiple motives.

The scalability potential of formal vs. informal institutions also raises interesting possibilities at the system level (economy or country). For instance, research often distinguishes between countries dominated by formal, third-party enforcement such as the U.S. and those dominated by informal, interpersonal governance such as India (e.g. Zucker, 1986). As we mentioned earlier, both governance mechanisms are likely to be effective for individual transactions. But more systemically, jurisdictions dominated by formal governance may allow firms to conduct both more and more complex exchanges. North (1990) suggested this as the reason why countries differ in economic development, but the implications of this for firms have not been fully explored. For example, do firms conduct more or less sophisticated acquisitions, alliances, and other exchanges within and across countries according to the availability of formal vs. informal institutional arrangements? This topic is beyond the scope of our paper, but is suggested by the argument we advance here.

Another interesting question is whether we would expect to observe similar dual strategies in non-emerging markets. These markets, by definition, are likely to have a higher average level of institutional strength and stability, and prior research has shown that immigrants have strong effects on location choice in developed markets (e.g. Hernandez, 2014). We believe there is scope to explore institutional effects within developed countries (e.g., Iriyama et al. 2011), especially when institutional quality varies across regions within a country. Comparative analysis of the institutional influence across emerging and developed markets would be another valuable way to assess the generalizability of our arguments and results.

An additional factor we theorize about in our study, which prior research has not, is the perspective of the ethnic community itself. Extant work has implicitly assumed that the ethnic community always is willing to cooperate with and wants the presence of co-ethnic firms (e.g. Hernandez, 2014). We suggest that the transactional benefits and limits of embedding firms' operations within the ethnic community go both ways. Table 1 was intended to offer such a dual perspective. And per our core argument, with the formalization of institutions members of ethnic communities can also overcome the limits of being outsiders relative to the native population. We call for future empirical work from the perspective of ethnic individuals, such as whether the entry of a co-ethnic firm affects labor market outcomes (e.g. jobs, wages).

We made a distinction between the strength and stability of formal institutions. Research on institutional voids, and other common perspectives on institutions, often emphasizes the strength of governance mechanisms (e.g. Khanna & Palepu, 1997; Dorobantu et al. 2017). This is a key attribute of institutions, since their ability to promulgate and enforce rules is essential to their efficacy (North, 1990). The perceived stability of formal institutions is also important. In particular, uncertainty may weaken the effectiveness of formal institutions and create a perception that these institutions may not be fulfilling their proper function (e.g. Henisz, 2000). For instance, when the recent financial crisis occurred in 2008, many of the financial institutions around the world looked inept to handle the crisis and needed reforming. But there was also a residual element of perceived weakness that exacerbated the impact of 'real' weakness and nearly caused the system of worldwide financial transactions to break down. We have attempted to bring this perspective into our study, and our results show that actual weakness in a host market's institutions (laws) and perceived weakness (uncertainty) have independent effects on firm's choices to rely on ethnic communities across heterogeneous location choices.

The empirical contribution of the study is also noteworthy. The relationship between ethnic communities and MNEs' location choice could be spurious because of reverse causality or omitted variables. While several precedents to this paper have shown an effect of immigrants on the investment choices of firms, few have been able to mitigate concerns about the endogeneity of this relationship. Our context enabled us to use the Chaoxian people as a plausibly exogenous proxy for the distribution of transnational ethnic communities across provinces. Hence this study provides evidence that the presence of ethnic communities may have a causal effect on the location choices of Korean banks.

Data limitations prevented us from examining the performance consequences of reliance on ethnic communities. We checked our sample and found that all the Korean bank subsidiaries established in China since 1992 had survived by 2016, except a few that were integrated into parent banks as a result of mergers. This prevented us from using survival as a proxy for performance (e.g. Hernandez, 2014). Financial or operational performance measures used in other work (e.g. Kalnins & Chung, 2006) were unavailable because Korean banks do not make information publicly available at the subsidiary level. We also did not empirically observe the supply, demand, and knowledge benefits of relying on formal vs. informal means of addressing exchange hazards outlined in Table 1. Rather, we relied on prior research arguing for these three mechanisms and focused our analysis on variation in formal institutional reliability as the boundary condition for the main effect of ethnic communities on location choice. We hope future research can delve into a comparison of these specific mechanisms and into the performance outcomes we could not isolate.

Conclusion. Transnational ethnic communities have become a significant part of the global economic system, as they contribute to the international flows of capital, technologies, and products (Hernandez, 2014; Iriyama, Li, & Madhavan, 2010; Kerr, 2008). The first stream of work on the effects of ethnic communities on foreign investment focused on explaining whether these communities attract firms from their homelands. We sought to move the literature a step further by exploring heterogeneity behind the main effect and offering a boundary condition for that effect. Using an institutional lens, our study sheds light on the conditions under which the mechanism by which ethnic communities facilitate demand, supply, and knowledge transactions for foreign co-ethnic firms diminishes in value. Our arguments and results contribute broadly to research on global strategy, ethnic communities, and institutions.

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Table 1: Benefits and Costs of Doing Business within the Ethnic Community

	Firm Perspective (Korean Bank)	**Ethnic Community Perspective (Chaoxian)**
Weak Property Rights (H1)	Affects: demand, labor supply, knowledge The liability of foreignness coupled with weak laws makes it hard for foreign banks to lend to and hire natives, lowering odds of foreign entry. Weak laws make searching for and verifying information about the market, protecting the firm's proprietary assets and knowledge, and screening credit-worthy borrowers costlier than usual. The informal trust and social enforcement offered by the ethnic community lessens these problems, enhancing odds of entry. Limitations: Opportunities to lend, hire, and transfer knowledge are limited by the (relatively small) size of the ethnic community.	Affects: demand, labor supply, knowledge Must rely on informal trust and relationships to find willing lenders and protect collateral assets as borrowers and for fair labor treatment as workers. Immigrants less embedded in native community. More likely to rely on ethnic community and ethnic banks for credit and jobs. Workers more likely to understand and accept language, management style, and ethnic business practices. Community "demands" entry of ethnic banks. Limitations: Opportunities to borrow, work, and apply knowledge are limited by the (relatively small) size of the ethnic community.
High Macro Uncertainty (H2a)	Affects: demand, labor supply, knowledge Uncertainty about economic prospects makes forecasting opportunities and risks difficult, lowering odds of entry. The risk of potential borrowers defaulting, potential workers quitting or behaving opportunistically (including misusing the firm's knowledge) rises. The informal trust and social enforcement offered by the ethnic community lessens these problems, enhancing odds of entry. Limitations: Opportunities to lend, hire, and transfer knowledge are limited by the (relatively small) size of the ethnic community.	Affects: demand, labor supply Uncertainty about economic prospects makes forecasting income and the odds of a bank "calling the loan" difficult, lowering odds of borrowing. Economy uncertainty enhances the risk that a potential employer will lay off workers, lower wages, or make working conditions less appealing. Borrowing from or working for an ethnic bank lowers these concerns because the bank must maintain good standing with the community. Limitations: Opportunities to borrow and work are limited by the (relatively small) size of the ethnic community.
High Lending Uncertainty (H2b)	Affects: demand, labor supply, knowledge Uncertainty about lending in a geography increases assessment potential "risk management" problems: harder to assess credit worthiness and to trust that potential workers will adequately screen and protect the bank's assets. It also raises questions about the relevance of the bank's current know-how for the target market. The ethnic community can be a trusted source of information about risks and borrowing patterns. Limitations: Opportunities to lend, hire, and transfer knowledge are limited by the (relatively small) size of the ethnic community.	Affects: demand, labor supply Banks in general will not want to lend or hire when lending uncertainty is high. Local (native) banks have a preference for native borrowers and workers, all else equal. Ethnic communities thus are relatively shut out of borrowing and working opportunities. Ethnic banks are less likely to have these biases. Limitations: Opportunities to borrow and work are limited by the (relatively small) size of the ethnic community.

Table 2. Descriptive Statistics and Correlation Matrix

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1)	Chaoxian (standardized)	1.00													
(2)	Korean immigrants (standardized)	0.22	1.00												
(3)	Firm experience	0.07	0.39	1.00											
(4)	GRP per capita	0.08	0.41	0.32	1.00										
(5)	High tech firms	0.14	0.47	0.20	0.61	1.00									
(6)	Industry distribution	-0.04	-0.04	0.03	-0.05	-0.31	1.00								
(7)	Foreign banks	-0.15	0.40	0.26	0.58	0.47	-0.03	1.00							
(8)	Korean banks	0.25	0.74	0.50	0.66	0.54	0.02	0.59	1.00						
(9)	Korean investment	0.20	0.59	0.28	0.61	0.54	-0.27	0.55	0.65	1.00					
(10)	SOEs	0.08	0.14	0.14	0.12	0.28	-0.30	0.12	0.29	0.12	1.00				
(11)	Foreign Employment	-0.08	0.43	0.43	0.62	0.36	0.05	0.70	0.71	0.53	0.07	1.00			
(12)	Legal	-0.03	0.35	0.34	0.81	0.53	-0.10	0.67	0.65	0.60	0.18	0.69	1.00		
(13)	Macro. uncertainty	-0.08	-0.13	-0.04	0.32	0.02	0.05	0.05	-0.08	0.07	-0.27	-0.01	0.08	1.00	
(14)	Lending uncertainty	0.03	-0.09	-0.15	-0.36	-0.05	-0.53	-0.43	-0.28	-0.18	0.23	-0.50	-0.45	0.06	1.00
	Mean	0	-0.00	0.17	9.83	6.89	0.11	2.11	0.67	17.07	7.52	0.02	6.98	0.09	5.83
	S.D.	1	1	0.63	0.99	1.4	0.05	1.52	0.9	2.45	0.98	0.03	4.1	0.03	2.37
	VIF	1.45	2.94	1.41	5.25	2.22	2.44	2.75	6.51	2.75	1.52	3.78	4.81	1.77	3.10

Note: N=976. Correlations with absolute values larger than 0.08 are significant at $p<0.01$.

Table 3. Conditional Logit: All Entries

	1	2	3	4	5	6	7	8
			Legal		Macroeconomic uncertainty		Lending uncertainty	
LABELS			High	Low	High	Low	High	Low
Chaoxian		0.414*	-0.912	0.958*	1.218**	-0.546	0.967**	-3.014
		(0.251)	(0.784)	(0.420)	(0.435)	(0.481)	(0.365)	(2.428)
Wald test: coeff.			4.495*		7.506**		2.671+	
Chaoxian/Firm experience			-1.213	0.610**	1.002**	-1.408	1.087**	-8.664
			(1.222)	(0.249)	(0.388)	(1.331)	(0.459)	(13.280)
Wald test: scaled coeff.			2.407+		2.459+		1.765+	
Korean immigrants	0.0434	0.0763	-0.254	0.550	0.0793	-0.215	0.215	-0.254
	(0.173)	(0.231)	(0.284)	(0.386)	(0.355)	(0.313)	(0.281)	(0.761)
Firm experience	0.710***	0.664***	0.752**	1.571**	1.216***	0.388+	0.889***	0.348
	(0.185)	(0.194)	(0.282)	(0.567)	(0.292)	(0.218)	(0.201)	(0.457)
GRP per capita	2.219*	3.172**	2.096	6.819*	4.649	2.855*	2.813	-1.380
	(0.931)	(1.138)	(1.753)	(2.836)	(3.272)	(1.270)	(2.392)	(1.240)
High tech firms	0.149	0.0644	0.596	0.288	0.164	0.673	0.718*	-0.0732
	(0.227)	(0.179)	(0.412)	(0.359)	(0.414)	(0.438)	(0.332)	(0.414)
Industry distribution	-2.074	1.769	-13.81	2.587	8.196	-22.96	0.933	1.705
	(7.659)	(8.293)	(15.13)	(9.643)	(17.28)	(16.36)	(11.01)	(13.06)
Foreign banks	0.201	0.0855	0.450	0.332	0.109	0.550	0.246	1.375*
	(0.205)	(0.212)	(0.312)	(0.509)	(0.372)	(0.335)	(0.290)	(0.563)
Korean banks	-0.197	-0.449	0.221	-1.661*	-1.520*	0.596	-1.556**	-1.169
	(0.305)	(0.418)	(0.615)	(0.825)	(0.736)	(0.626)	(0.565)	(1.145)
Korean investment	0.315+	0.383*	0.152	0.561*	0.521	0.163	0.343	1.118+
	(0.184)	(0.182)	(0.255)	(0.277)	(0.459)	(0.108)	(0.227)	(0.643)
SOEs	0.181	-0.482	2.205*	-2.174*	0.460	0.252	-0.443	2.346*
	(0.513)	(0.560)	(1.022)	(1.074)	(1.323)	(0.774)	(0.792)	(1.174)
Foreign Employment	-9.338	-8.645	0.833	-18.41	8.302	-15.15	6.270	7.414
	(8.648)	(8.455)	(12.28)	(23.09)	(13.09)	(15.67)	(18.52)	(16.84)
Legal	-0.0639	-0.0400	0.00516	-0.976*	0.168	-0.237+	0.126	-0.280+
	(0.0717)	(0.0958)	(0.161)	(0.395)	(0.111)	(0.139)	(0.120)	(0.150)
Macroeconomic uncertainty	-5.092	-8.803	0.479	-9.222	29.52**	-45.05+	0.593	-11.40
	(10.24)	(10.72)	(11.12)	(13.14)	(9.780)	(25.28)	(9.056)	(16.33)
Lending uncertainty	0.144	0.169	0.268	0.448	0.569	0.0517	0.743*	-1.633***
	(0.169)	(0.247)	(0.297)	(0.415)	(0.424)	(0.341)	(0.363)	(0.437)
Observations	976	976	480	496	496	480	480	496
Log likelihood	-144.1	-111.3	-63.71	-44.73	-64.64	-60.87	-68.21	-36.20
McFadden's R2 adjusted	0.241	0.228	0.300	0.388	0.280	0.235	0.253	0.483
LR test		65.55	2.189	8.872	11.28	1.317	10.96	2.229
LR test p-value		0	0.139	0.00290	0.000782	0.251	0.000933	0.135

NOTES. The likelihood ratio (LR) test in Model 2 is relative to Model 1. In all other models in Table 3 it is relative to a model without the independent variable (not reported due to space constraints). T-tests for the coefficient of "Chaoxian" in Model 2 and the Wald tests for comparison of the coefficients and scaled coefficients of "Chaoxian" across subsamples in Models 3-8 are one-tailed; all other tests in the table are two-tailed. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10. Robust standard errors appear in parentheses.

Table 4. Conditional Logit: Initial Entries

	1	2	3	4	5	6	7	8
			Legal		Macroeconomic uncertainty		Lending uncertainty	
LABELS			High	Low	High	Low	High	Low
Chaoxian		0.635**	-0.186	0.670*	1.110**	-0.327	1.578***	-6.168
		(0.249)	(0.398)	(0.327)	(0.382)	(0.465)	(0.425)	(5.897)
Wald test: coeff.			4.290*		5.855**		1.764+	
Chaoxian/GRP			-0.0783	0.267*	0.404	-0.0588	0.429+	1.357
			(0.162)	(0.161)	(0.324)	(0.081)	(0.275)	(1.129)
Wald test: scaled coeff.			3.098*		3.352*		0.349	
Korean immigrants	0.127	0.194	-0.0706	1.005*	0.222	0.0254	-0.00906	4.211*
	(0.206)	(0.234)	(0.233)	(0.487)	(0.289)	(0.471)	(0.314)	(1.690)
GRP per capita	2.898**	3.704**	2.375*	2.509***	2.750	5.551**	3.675	-4.547*
	(0.994)	(1.406)	(0.966)	(0.686)	(2.539)	(2.134)	(2.980)	(1.975)
High tech firms	0.200	0.230	0.866	-0.0521	0.119	0.930	0.866*	-1.838+
	(0.225)	(0.247)	(0.533)	(0.337)	(0.459)	(0.674)	(0.434)	(0.982)
Industry distribution	-3.563	-3.949	-33.78+	-2.842	0.283	-25.34	5.934	-3.340
	(8.629)	(9.810)	(18.33)	(6.249)	(16.00)	(27.24)	(14.10)	(12.75)
Foreign banks	-0.000749	0.122	0.954***	0.552	0.233	0.0989	-0.0151	4.614*
	(0.208)	(0.212)	(0.212)	(0.485)	(0.332)	(0.373)	(0.296)	(2.206)
Korean banks	0.0832	-0.482	0.0867	-1.174*	-1.032	0.735	-1.785**	-4.443*
	(0.379)	(0.409)	(0.303)	(0.478)	(0.664)	(0.811)	(0.647)	(2.053)
Korean investment	0.180	0.168	0.271	0.350+	0.388	0.0252	0.434	1.192
	(0.180)	(0.228)	(0.168)	(0.202)	(0.478)	(0.141)	(0.382)	(1.253)
SOEs	-0.391	-0.674	0.0633	-0.990***	-0.548	-0.487	-0.0581	1.515
	(0.531)	(0.566)	(0.231)	(0.169)	(1.263)	(0.969)	(1.387)	(1.000)
Foreign Employment	-14.56	-6.169	-2.130	-2.252	16.80	-59.42**	33.80+	23.99
	(10.32)	(10.37)	(9.370)	(15.07)	(14.76)	(18.40)	(19.80)	(31.32)
Legal	-0.0567	-0.00344	-0.189	-0.729*	0.164	-0.254	0.200	-0.133
	(0.0848)	(0.0944)	(0.201)	(0.283)	(0.151)	(0.167)	(0.145)	(0.321)
Macroeconomic uncertainty	-4.222	-1.012	13.72	-34.24+	21.19*	-34.22*	10.54	6.812
	(11.19)	(11.68)	(14.44)	(20.46)	(10.54)	(17.27)	(10.88)	(19.66)
Lending uncertainty	0.220	0.344	0.127	0.0591	0.478	0.0866	1.016*	-2.214***
	(0.169)	(0.264)	(0.164)	(0.204)	(0.354)	(0.392)	(0.453)	(0.646)
Observations	608	608	304	304	304	304	304	304
Log likelihood	-95.35	-91.99	-58.13	-49.20	-51.50	-28.84	-46.48	-16.62
McFadden's R2 adjusted	0.138	0.157	0.133	0.144	0.0559	0.256	0.173	0.438
LR test		6.729	0.130	5.519	10.34	0.287	16.26	1.248
LR test p-value		0.00949	0.719	0.0188	0.00130	0.592	5.53e-05	0.264

NOTES. The likelihood ratio (LR) test in Model 2 is relative to Model 1. In all other models in Table 3 it is relative to a model without the independent variable (not reported due to space constraints). T-tests for the coefficient of "Chaoxian" in Model 2 and the Wald tests for comparison of the coefficients and scaled coefficients of "Chaoxian" across subsamples in Models 3-8 are one-tailed; all other tests in the table are two-tailed. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10. Robust standard errors appear in parentheses.

Table 5. Conditional Logit: All Entries, Chaoxian Ratio

	1	2	3	4	5	6	7	8
			Legal		Macroeconomic uncertainty		Lending uncertainty	
LABELS			High	Low	High	Low	High	Low
Chaoxian ratio		0.423*	-0.740	1.212**	0.964**	-0.337	0.845**	-2.890+
		(0.214)	(0.660)	(0.434)	(0.354)	(0.397)	(0.306)	(1.477)
Korean immigrants ratio	0.154	0.360	-0.292	1.251*	-0.219	0.495	0.411	0.166
	(0.274)	(0.285)	(0.425)	(0.581)	(0.679)	(0.313)	(0.406)	(0.407)
Firm experience	0.715***	0.690***	0.700**	1.714**	1.236***	0.365+	0.969***	0.540
	(0.185)	(0.206)	(0.259)	(0.584)	(0.292)	(0.222)	(0.217)	(0.530)
GRP per capita	2.121*	3.090**	2.371	7.813**	4.638	2.503*	2.593	-1.072
	(0.957)	(1.045)	(2.198)	(2.547)	(3.317)	(1.152)	(2.063)	(1.211)
High tech firms	0.0665	-0.175	0.711	-0.454	0.230	0.0958	0.470	-0.193
	(0.260)	(0.234)	(0.485)	(0.444)	(0.505)	(0.442)	(0.400)	(0.425)
Industry distribution	-3.149	-1.379	-5.307	-1.520	5.981	-18.15	-9.318	13.10
	(8.508)	(7.758)	(14.41)	(10.19)	(19.28)	(12.51)	(11.32)	(14.86)
Foreign banks	0.227	0.130	0.327	0.414	-0.0655	0.587+	0.277	1.259*
	(0.215)	(0.211)	(0.360)	(0.424)	(0.427)	(0.314)	(0.334)	(0.543)
Korean banks	-0.218	-0.507	-0.115	-1.800+	-1.131	-0.00578	-1.146*	-1.679
	(0.294)	(0.394)	(0.546)	(0.924)	(0.718)	(0.535)	(0.523)	(1.145)
Korean investment	0.332+	0.430*	0.115	0.835**	0.509	0.190	0.389	1.380+
	(0.195)	(0.187)	(0.268)	(0.295)	(0.445)	(0.123)	(0.253)	(0.710)
SOEs	0.260	-0.246	1.797+	-1.265	0.813	0.323	-0.0592	2.219*
	(0.493)	(0.573)	(0.925)	(1.245)	(1.284)	(0.711)	(0.813)	(1.030)
Foreign Employment	-11.83	-16.75+	12.10	-53.61*	4.615	-18.35	-12.85	23.35
	(9.091)	(9.081)	(16.00)	(24.23)	(16.42)	(16.06)	(16.65)	(18.51)
Legal	-0.0534	-0.0156	0.0231	-0.909*	0.125	-0.138	0.111	-0.178
	(0.0715)	(0.0897)	(0.131)	(0.356)	(0.117)	(0.137)	(0.112)	(0.182)
Macroeconomic uncertainty	-5.029	-9.120	4.901	-1.897	21.59**	-51.08+	1.744	-10.54
	(10.34)	(11.23)	(11.70)	(16.13)	(7.752)	(30.83)	(8.429)	(19.66)
Lending uncertainty	0.149	0.233	0.192	0.739*	0.611	0.0698	0.680*	-1.657***
	(0.154)	(0.200)	(0.354)	(0.322)	(0.379)	(0.285)	(0.297)	(0.379)
Observations	976	976	480	496	496	480	480	496
Log likelihood	-143.9	-111.0	-63.99	-43.36	-65.87	-60.17	-69.60	-34.90
McFadden's R2 adjusted	0.242	0.230	0.298	0.403	0.269	0.242	0.240	0.496
LR test		65.80	1.890	10.63	7.613	0.668	8.382	4.660
LR test p-value		0	0.169	0.00111	0.00579	0.414	0.00379	0.0309

NOTES. The likelihood ratio (LR) test in Model 2 is relative to Model 1. In all other models in Table 3 it is relative to a model without the independent variable (not reported due to space constraints). T-tests for the coefficient of "Chaoxian" in Model 2 are one-tailed; all other tests in the table are two-tailed. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10. Robust standard errors appear in parentheses.

Table 6. Conditional Logit: Initial Entries, Chaoxian Ratio

	1	2	3	4	5	6	7	8
			Legal		Macroeconomic uncertainty		Lending uncertainty	
LABELS			High	Low	High	Low	High	Low
Chaoxian ratio		0.549**	-0.344	1.028*	0.795**	-0.00430	1.251**	-7.038*
		(0.225)	(0.500)	(0.461)	(0.333)	(0.463)	(0.475)	(3.072)
Korean immigrants ratio	0.0914	0.312	-0.212	0.958	-0.257	1.382	-0.632	1.925*
	(0.338)	(0.351)	(0.424)	(0.612)	(0.691)	(0.962)	(0.450)	(0.844)
GRP per capita	2.926**	3.586**	2.480*	7.647*	2.844	6.299**	4.357+	-2.811
	(1.030)	(1.287)	(1.035)	(3.819)	(2.714)	(2.424)	(2.460)	(2.749)
High tech firms	0.176	0.0582	1.020+	-0.253	0.210	-0.0820	0.893+	-1.257
	(0.288)	(0.322)	(0.606)	(0.536)	(0.585)	(0.828)	(0.498)	(0.908)
Industry distribution	-3.892	-7.563	-33.83+	3.634	-0.423	-18.86	3.010	30.37
	(9.475)	(10.24)	(18.76)	(7.430)	(17.75)	(19.70)	(15.58)	(19.18)
Foreign banks	-0.00245	0.109	0.915***	0.0663	-0.0150	0.255	-0.338	3.650**
	(0.218)	(0.214)	(0.231)	(0.384)	(0.401)	(0.318)	(0.365)	(1.348)
Korean banks	0.160	-0.263	0.150	-1.424	-0.461	-0.378	-1.108	-4.286*
	(0.347)	(0.379)	(0.458)	(0.923)	(0.659)	(0.751)	(0.710)	(1.868)
Korean investment	0.200	0.222	0.236	0.869**	0.384	0.114	0.443	2.201*
	(0.184)	(0.234)	(0.155)	(0.328)	(0.456)	(0.172)	(0.340)	(1.114)
SOEs	-0.320	-0.347	0.00549	-1.932	-0.0962	0.907	0.833	1.460
	(0.568)	(0.601)	(0.283)	(1.947)	(1.283)	(1.429)	(1.278)	(1.225)
Foreign Employment	-16.62	-17.20	2.876	-28.26	13.44	-92.45*	27.76	40.10
	(10.50)	(10.76)	(13.13)	(34.76)	(18.68)	(44.97)	(18.19)	(33.64)
Legal	-0.0573	0.00739	-0.235	-1.014	0.100	-0.0598	0.0802	0.199
	(0.0856)	(0.0866)	(0.208)	(0.694)	(0.158)	(0.146)	(0.144)	(0.249)
Macroeconomic uncertainty	-4.292	-1.689	14.06	-9.428	13.40	-33.19	9.955	-17.65
	(11.00)	(11.15)	(13.85)	(16.72)	(8.773)	(22.26)	(9.982)	(30.18)
Lending uncertainty	0.239	0.394+	0.0522	0.826+	0.503	0.364	0.872*	-1.981***
	(0.160)	(0.206)	(0.230)	(0.467)	(0.323)	(0.269)	(0.407)	(0.573)
Observations	608	608	304	304	304	304	304	304
Log likelihood	-95.45	-93.12	-57.90	-35.47	-53.15	-27.10	-47.85	-16.12
McFadden's R2 adjusted	0.137	0.148	0.136	0.237	0.0318	0.287	0.153	0.447
LR test		4.661	0.508	6.960	5.676	4.69e-05	10.31	5.114
LR test p-value		0.0309	0.476	0.00833	0.0172	0.995	0.00132	0.0237

NOTES. The likelihood ratio (LR) test in Model 2 is relative to Model 1. In all other models in Table 3 it is relative to a model without the independent variable (not reported due to space constraints). T-tests for the coefficient of “Chaoxian” in Model 2 are one-tailed; all other tests in the table are two-tailed. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10. Robust standard errors appear in parentheses.

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