

THE INFLUENCE OF IMMIGRANT SOCIAL CAPITAL ON FOREIGN DIRECT INVESTMENT IN THE PRESENCE OF INSTITUTIONAL RISKS

ABSTRACT

Immigration is a millennia-old phenomenon that has reached new heights in the 21st century with a global immigrant population of 215 million. Despite the importance and volume of the global immigrant community, research on immigrants' impact on international business activities has been scarce. To fill this gap, this study builds on social capital and institutional theory to examine the role of home country and host country immigrants in facilitating foreign direct investment (FDI). We argue that immigrant social capital has a positive influence on FDI due to the distinct information and solidarity benefits immigrants possess as a result of their transnational ties to social actors of their country of origin and country of residence. We further propose that the positive relationship between immigrant concentration and FDI is moderated by institutional risks and contingent on the type of immigrant groups involved and institutional risks present. Based on annual bilateral immigration data across 27 countries over the 1997-2008 period, we find that informal institutional risks in the form of cultural distance positively moderate the relationship between immigrant concentration and FDI for both, home country and host country immigrants. In addition, we find that informal institutional risks have a stronger moderating influence for host country immigrants than for home country immigrants as a result of the deeper knowledge host country immigrants possess regarding the host country culture. We further find that formal institutional risks in the form of governance hazards have a positive and significant moderating effect only for home country immigrants due to their ability to receive up-to-date information on the political and economic landscape of the host country and the trust they receive from home country firms. This study contributes to research on immigrants' role in international business, social capital theory, and institutional theory.

Keywords: Immigration; social capital; institutional risks; FDI; contingency theory

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INTRODUCTION

Immigration is a millennia-old phenomenon that has reached new heights in the 21st century. The global immigrant population was 215 million in 2011, which accounts for 3 percent of the world population and is a 40 percent increase from 1990 (The Economist, 2011a). If migrants were a country, they would be the fifth-largest nation in the world. While the sheer number of immigrants enhances their importance, their changing characteristics contribute to their global significance as well. Easier and cheaper ways of transportation and communication allow immigrants to remain in touch with their countries of origin, thereby creating a network of individuals with immense global reach. Firms have gradually begun to recognize the importance of immigrants in spreading capital, products, and ideas due to their knowledge of different countries and their ability to foster trust (The Economist, 2011b).

Prior research in international business and international economics finds that immigrants have a significant influence on a variety of firms' cross-border activities that include foreign market entry (Bendelj, 2002; Hernandez, 2011), foreign investment (Foley & Kerr, 2013; Gillespie et al., 1999; Madhavan & Iriyama, 2009), foreign market performance (Rangan & Sengul, 2009), and trade (Gould, 1994; Rauch & Trindade, 2002). Social capital theory has been used to explain the role of immigrants in international business activities (Kalnins & Chung, 2006; Portes, 1998). It suggests that social capital develops through the clustering of immigrants in a region and can be a resource accessible by firms that intend to enter a foreign market (Hernandez, 2011). Firms may benefit from immigrant social capital through the immigrants' knowledge (information benefit) of their country of origin and country of residence and their ability to maintain trust and solidarity (solidarity benefit) with organizations from their country of origin (Foley & Kerr, 2013; Gould, 1994; Luk et al.,

2008). However, previous studies have neither distinguished between the specific mechanisms behind different types of immigrant social capital nor have compared their distinct roles in facilitating foreign direct investment (FDI) in the presence of different types of institutional risks.

To fill this gap, we examine the mechanisms behind two types of immigrant groups, home country immigrants who live outside the firm's home country and host country immigrants who reside in the firm's home country, in influencing the level of bilateral FDI. We further compare their distinct roles in driving FDI in contexts characterized by two different forms of institutional hazards, i.e. informal and formal institutional hazards.

This study contributes to the field of social capital, institutional theory, and international business. First, it examines the role of two different types of immigrant social capital in facilitating FDI. While prior studies have either examined the influence of only one immigrant group on cross-border activities (Bandelj, 2002; Foley & Kerr, 2013) or have included both, home and host country immigrants, without making a clear distinction between them (Rangan & Sengul, 2009), we compare the differences in information and solidarity benefits of the two types of immigrant social capital and their distinct influences on FDI. By examining the different mechanisms behind immigrant social capital, we provide a nuanced understanding in what contexts social capital facilitate FDI. Second, this study contributes to institutional theory by examining the moderating influence of different types of institutional hazards on the relationship between immigrant social capital and FDI. In doing so, we integrate social capital theory and institutional theory and argue that different forms of immigrant social capital provide asymmetric mechanisms that drive FDI contingent on the type of immigrant social capital and institutional risks involved. Third, our study contributes to international business by demonstrating the positive and significant influence of home country and host country immigrant concentration on bilateral FDI.

THEORY AND HYPOTHESES

Immigrant Social Capital

Social capital can be defined as: “the sum of the actual and potential resources embedded within, available through, and defined from the network of relationships possessed by an individual or social unit” (Nahapiet & Ghoshal, 1998: 243). It is a central concept in the field of sociology (Portes, 1998; Portes & Sensenbrenner, 1993) and has also been applied to and examined in the areas of management (Adler & Kwon, 2002; Kalnins & Chung, 2006) and economics (Knack & Keefer, 1997; Putnam, 1993). In the context of immigration, we propose that social capital arises through the immigrants’ transnational network of relationships with social actors of their country of origin and country of residence. Firms that (intend to) do business abroad may benefit from and gain access to immigrant social capital by co-locating with immigrants in a country or region that has a high immigrant concentration (Hernandez, 2011). The higher the immigrant concentration in a region is, the more likely firms are able to interact with individuals and groups that possess useful multi-country bonds. Immigrant clusters represent valuable social capital for firms and institutions due to their bonds to two or more countries and as a result their ability to serve as boundary-spanners to other countries (Madhavan & Iriyama, 2009; Schotter & Abdelzaher, 2013). Immigrant social capital may confer two types of benefits: Information benefits and solidarity benefits (Luk et al., 2008).

Immigrant social capital provides information benefits as immigrants possess preferential knowledge of another country through their transnational social network. Immigrants frequently maintain social ties to their country of origin after having left the country (Madhavan & Iriyama, 2009; Oettl & Agrawal, 2008; Portes et al., 2002). At the same time, they establish new ties in their country of residence through their interaction with the local environment as employees, managers, and residents (Ellis, 2000). These social ties serve as information channels for immigrants to valuable knowledge of their country of origin

and their country of residence (Bandelj, 2002; Foley & Kerr, 2013; Gillespie et al., 1999). This includes information and knowledge of market entry opportunities, the cultural, political, and legal environment, and contacts to local firms and institutions. Through this knowledge, immigrants may help firms become aware of business opportunities (Gould, 1994; Hernandez, 2011) and mitigate the negative effects of the liability of foreignness when doing business abroad (Johanson & Vahlne, 1977). Individuals who do not possess these social ties do not receive information of the same quality, relevance, and timeliness (Adler & Kwon, 2002). Thus, immigrants may provide valuable knowledge of another country through their social transnational network of relationships, which non-immigrants tend to not have access to.

Immigrant social capital also confers solidarity benefits as immigrants are able to more easily establish trust and solidarity with individuals and organizations of their country of origin compared to foreigners (Jiang et al., 2011; Portes & Sensenbrenner, 1993; Rangan & Sengul, 2009). This is because similarities in culture and ethnicity increase the feelings of mutual attraction (Byrne, 1971) and the sense of belonging to the same social category (Tajfel, 1981; Turner, 1987), thereby increasing trust and goodwill among social actors who share the same culture and ethnicity. Solidarity and trust help to encourage cooperation among individuals and organizations and reduce the need for formal controls (Adler & Kwon, 2002) and as a result help to improve transaction cost efficiency (Pretty, 2003). In international business, trust and goodwill are particularly helpful in reducing information and knowledge barriers that are especially prevalent when operating abroad (Zhou et al., 2007). In addition, trust also promotes richer information exchange between business partners and further enhances the information benefit aspects of immigrant social capital (Jiang et al., 2011).

Immigrant social capital can be accessed by firms from the immigrants' country of origin that (intend to) invest in their country of residence as well as firms from the immigrants' country of residence that (intend to) invest in their country of origin (Rangan &

Sengul, 2009). While immigrant social capital can potentially be accessed by firms of their country of origin as well as country of residence, they may constitute different forms of social capital with asymmetric characteristics in the form of information and trust benefits, depending on whether the immigrants reside in the MNEs' home country or host country. In order to capture these distinct characteristics and examine their influences on cross-border activities, we classify immigrants into two groups (see Figure 1):

1. Home country immigrants: Immigrants that are originally from the focal MNE's home country and reside in the host country, i.e. the country of (potential) foreign MNE investments.

2. Host country immigrants: Immigrants that are originally from the host country, i.e. country of (potential) foreign MNE investments, and reside in the focal MNE's home country.

The Effect of Immigrants on FDI

Home country immigrant social capital facilitates FDI in the host country, i.e. the immigrants' new country of residence, because they can provide home country MNEs with information benefits in the form of preferential knowledge of the host country, such as information on market entry opportunities and the institutional environment (Banderlj, 2002; Hernandez, 2011). They have better access to such information due to their frequent interactions with host country individuals and their embeddedness in the host country environment (Ellis, 2000). As home country immigrants also maintain ties to the home country, they may help to create awareness for investment opportunities by disseminating information on the host country within their home country network. Home country immigrants further encourage FDI through solidarity benefits with the MNE, i.e. greater levels of trust placed in them by the MNE. These solidarity benefits help to reduce reliance on formal control and lower operational costs when the foreign investments are managed and supervised by home country immigrants (Banai & Reisel, 1999; Portes & Sensenbrenner,

1993). Firms may gain access to and benefit from immigrant social capital thereby increasing their investments in the host country. Therefore,

Hypothesis 1a: The concentration of home country immigrants in a host country positively influences the total amount of FDI stock from the home country in the host country.

Similarly, we expect that host country immigrant social capital also encourages FDI. Host country immigrants may facilitate FDI by providing home country firms with preferential knowledge of the host country, i.e. their country of origin (Gillespie et al., 1999). Host country immigrants possess ties to the home and host country and serve as channels through which information on investment opportunities can reach the home country firms. Further, while host country immigrants tend to receive lower levels of trust from home country firms compared to home country nationals, they enjoy higher levels of trust and goodwill with host country individuals and organizations as they share a common culture and origin with them (Jiang et al., 2011). This drives FDI as MNEs can employ host country immigrants to help manage their investments and reduce difficulties and barriers in the host country environment when operating abroad. The higher the host country immigrant concentration is, the larger the extent of host country immigrant social capital becomes. Thus, we argue:

Hypothesis 1b: The concentration of host country immigrants in a home country positively influences the total amount of FDI stock from the home country in the host country.

The Moderating Effect of Institutional Risks

MNEs that invest in a host country are doing business in an unfamiliar cultural, legal, and political environment and may thus face informal and formal institutional risks (North, 1990; Zaheer, 1995). Informal institutional risks result from cultural differences between the home and host country (Dikova et al., 2010; Schwens et al., 2010). The larger cultural distance between home and host country is, the more difficult the flow of competencies,

information, and knowledge between the countries becomes, thereby increasing uncertainty and the cost of doing business abroad (Tihanyi et al., 2005). Formal institutional hazards are determined by the quality of a country's governance system (Dikova & van Witteloostuijn, 2007; Slangen & Beugelsdijk, 2010). The higher the quality of the governance system is, the lower the risks of political unrest and government corruption in the country is (Delios & Henisz, 2000; Globerman & Shapiro, 2003). Both types of institutional risks significantly influence foreign investment decisions in a country and may moderate the relationship between immigrants and FDI.

Cultural distance. In contexts characterized by high informal institutional risks in the form of large cultural distances, home country immigrants may be particularly prone to encourage FDI as they are able to help resolve difficulties resulting from cultural differences through their knowledge of the host country culture. As home country immigrants are frequently interacting with individuals and organizations in the host country, they have gained an understanding of the cultural environment they are living in (Ellis, 2000). This understanding stems from first-hand experience and is deeper than the understanding home country residents who have not lived in the host country may acquire from second-hand sources (Nisbett & Ross, 1980). Using their knowledge of the host country culture, home country immigrants are able to adapt practices and routines in the MNE subsidiary so that they may work smoothly in the host country's cultural environment. Home country immigrants further tend to enjoy higher levels of trust from the MNE headquarter compared to host country managers (Jiang et al., 2011; Portes & Sensenbrenner, 1993). This allows home country immigrants to attain larger autonomy in adapting and implementing home country MNE practices to the needs of the different culture using their knowledge of the host culture. The larger the cultural distance between home and host nation is, the higher the level of trust home country immigrants receive from home country firms relative to host country nationals becomes. The trust and solidarity help to reduce transaction costs when investing

abroad and as a result facilitate FDI. Thus, the positive influence of home country immigrant social capital on FDI is stronger in contexts characterized by large cultural distances between home and host country due to the enhanced role of the immigrants' information and solidarity benefits.

Hypothesis 2a: Cultural distance positively moderates the relationship between the concentration of home country immigrants in the host country and the total amount of FDI stock from the home country in the host country.

Host country immigrants who reside in the home country may also play a more enhanced role in driving FDI when the cultural distance between home and host country is large. Host country immigrants possess knowledge of the host country culture as they are born and raised in that culture (Hofstede, 2001). They have gained an understanding of the cultural values and preferences through their relationships to and interactions with other members of the culture during early childhood and have retained their knowledge after having left the country (Hofstede, 2001; Sirmon & Jane, 2004). While host country immigrants do not permanently reside in the host country anymore, they are still able to significantly help the MNE headquarter in understanding the host country culture as culture does not change rapidly (Hofstede, 2001) and thus does not need to be assessed locally on a regular basis. Host country immigrants can further encourage FDI through solidarity benefits with host country stakeholders. Host country immigrants can be helpful in managing MNE investments in the host country due to the higher level of trust and solidarity they enjoy from host country employees and institutions (Jiang et al., 2011). The larger the cultural distance between home and host country is, the more host country individuals and institutions tend to trust host country immigrants compared to home country individuals. This increased propensity to trust may help reduce animosity and anxiety when a firm from a culturally distant country invests in the host country. Therefore, we propose that the positive effect of host country immigrant

social capital on FDI is stronger in contexts characterized by high informal institutional risks in the form of cultural distance between the home and host country.

Hypothesis 2b: Cultural distance positively moderates the relationship between the concentration of host country immigrants in the home country and the total amount of FDI stock from the home country in the host country.

Based on our previous discussion, we expect the relationship between both, home and host country immigrants, and FDI to be positively moderated by the cultural distance between the home and host country. However, the extent of the moderating influence may be different for the two types of immigrant social capital due to asymmetric information and solidarity benefits of social capital in driving FDI. While both immigrant clusters possess information and knowledge of the host country culture, their specific knowledge of the host country culture is different. Host country immigrants tend to have a better and deeper understanding of the host country culture compared to home country immigrants, as culture is highly complex and learned early in a person's life through interaction with their social environment (Hofstede, 2001; Sirmon & Jane, 2004). In contrast to host country immigrants, home country immigrants tend to possess a more regular and up-to-date assessment of local cultural practices and attitudes as they reside in the host country and interact with the cultural environment on a daily basis. However, culture is highly complex and remains relatively stable over time (Hofstede, 2001). Thus, a deeper understanding of culture is more important than an up-to-date assessment when investing abroad. At the same time, there are differences in solidarity benefits between home country and host country immigrants as well. Home country immigrants enjoy higher levels of trust from home country firms relative to host country nationals, particularly when cultural distance between home and host country is large. Similarly, but in an opposite direction, host country immigrants receive more trust from host country stakeholders compared to home country nationals which may help to reduce anxiety and animosity towards home country investors. We argue that while both, home and host

country immigrant solidarity benefits, are similarly important in facilitating FDI, host country information benefits are more consequential than home country information benefits when cultural distance is large. Therefore, we propose

Hypothesis 2c: The positive moderating influence of cultural distance is stronger for the concentration of host country immigrants in the home country than for home country immigrants in the host country.

Governance risks. In addition to cultural distance, governance risks of the host country may also moderate the relationship between immigrants and FDI. We expect immigrants to possess a more exposed role in driving FDI in contexts characterized by high governance hazards due to their ability to help MNEs mitigate the negative influences that result from these hazards. In particular, home country immigrants may have a more exposed role in driving FDI in contexts of high governance risks by helping MNEs to anticipate and manage governance risks through their knowledge and insights of the political and economic situation of the host country. Home country immigrants are embedded in the host country environment and are able to obtain preferential information on local governance hazards due to their links to and frequent interactions with local individuals, organizations, and institutions (Ellis, 2000). In addition to the information benefits, home country immigrants may facilitate FDI in the presence of large governance hazards through the trust they receive from home country MNEs (Jiang et al., 2011). MNEs likely trust home country immigrants to manage situations in the MNE's best interest compared to local managers from the host country. For example, home country firms may believe that home country immigrants feel more obliged to the interests of the home country firm and do not easily succumb to corruption whereas host country employees may be more prone to corruption. Thus,

Hypothesis 3a: Governance risks positively moderate the relationship between the concentration of home country immigrants in the host country and the total amount of FDI stock from the home country in the host country.

Governance risks may also have a moderating influence on the positive relationship between host country immigrants and FDI through the information and solidarity benefits of host country immigrants. As immigrants tend to maintain ties to their country of origin after they have emigrated (Madhavan & Iriyama, 2009; Oettl & Agrawal, 2008), they are able to obtain preferential information on governance risks in the host country when communicating with social actors of their country of origin. Thus, the positive influence of host country immigrants on FDI may be stronger in contexts characterized by high governance risks. In addition, host country immigrants may also drive FDI when governance risks are high as they are able to quickly develop trust and solidarity with local government organizations and authorities. Although home country firms may not trust them as much as they trust home country individuals, host country immigrants may be able to obtain preferential information on current governance hazards through their trust with host country stakeholders. MNEs may see this as an advantage when investing abroad. Therefore, we propose

Hypothesis 3b: Governance risks positively moderate the relationship between the concentration of host country immigrants in the home country and the total amount of FDI stock from the home country in the host country.

While we suggest that the relationship between both types of immigrant social capital and FDI is moderated by governance hazards, we also expect that the magnitude of the moderating effect is different due to the distinct characteristics of governance risks and the differences in information and solidarity benefits of the two immigrant groups. Governance risks differ from risks resulting from culture as a country's governance risks may experience significant changes within a few years (Kaufmann et al., 2009) whereas culture tends to remain relatively stable over many decades (Hofstede, 2001). Thus, it is more important to obtain an up-to-date assessment of governance hazards to be able to react to them correctly and timely. In addition, governance hazards are less complex and tacit and may be more quickly understood by non-natives compared to culture (Hofstede, 2001). As a result, it is

easier to develop an understanding of recent changes in policies that directly affect the MNEs' foreign investments than of deeply embedded cultural values and attitudes that may be cause for resentment among host country stakeholders (Sirmon & Jane, 2004; Hofstede, 2001).

Different types of immigrant groups possess different information and solidarity benefits in facilitating FDI in contexts characterized by high governance risks. Home country immigrants possess a more up-to-date overview of governance hazards than host country immigrants do. As home country immigrants reside in the host country, they interact on a constant basis with other host country social actors (Ellis, 2000). Thus, home country immigrants are able to grasp the local governance situation with its most recent developments through their personal contacts and exposure to local events. In contrast, host country immigrants may not possess the same level of intuition for the most recent political and economic developments in the host country compared to home country immigrants. While host country immigrants still maintain ties to the host country, they tend to have less frequent interactions with their host country contacts as they are not fully embedded in their country of origin anymore. Therefore, we expect home country immigrants' information benefits to outweigh host country immigrants' information benefits in contexts characterized by high governance risks. In addition to asymmetric information benefits, there are differences in solidarity benefits as well. Home country immigrants enjoy higher levels of trust from home country MNEs compared to host country immigrants. While host country immigrants are able to quickly establish trust and solidarity with host country authorities, they may not enjoy the same level of trust from home country firms to manage governance hazards, such as corruption, to the MNEs' best interest compared to home country immigrants (Jiang et al., 2011; Portes & Sensenbrenner, 1993). In contexts of high governance hazards, we expect trust between home country immigrants and home country firms to be more important in facilitating FDI than trust between host country immigrants and host country stakeholders.

Therefore, we propose that governance hazards have a stronger moderating effect for home country immigrants than for host country immigrants,

Hypothesis 3c: The positive moderating influence of governance risks is stronger for the concentration of home country immigrants in the host country than for host country immigrants in a home country.

METHODS

Data

We test our hypotheses using cross-sectional time-series data on bilateral FDI stock across 27 OECD countries over the 1997-2008 period. The data are obtained from the OECD Statistical Compendium database which includes country-dyad FDI stocks reported by its member countries. We included the 27 OECD members for which we can obtain FDI and immigration data. We collected data for the main independent variable from the OECD International Migration Database. Data for the moderating variables come from Hofstede (1980, 2001) and the World Bank index on governance quality. We compiled data for the control variables from a number of sources that include the World Bank's *World Development Indicators* (WDI), the CIA's *World Factbook*, the website *www.cepii.fr*, and Hines and Rice's (1994) list of tax havens.

Measures

We use *FDI stock* as the dependent variable. Data are obtained from the OECD Statistical Compendium. FDI stocks represent the year-end aggregated value of capital stocks with a degree of ownership that allows for management control and has been frequently used in the fields of international business and international economics (e.g. Buckley et al., 2007; Clougherty & Grajek, 2008; Sethi et al., 2003; Stein & Daude, 2007).

For the main independent variables, concentration of *home country immigrants* and *host country immigrants*, we use the ratio of total residents born in the country of origin to total population of the country of residence (Hernandez, 2011; Rauch & Trindade, 2002): (1) Home country immigrants = home country immigrant population / total population of the host country; (2) host country immigrants = host country immigrant population / total population of the home country. Data on immigration come from the OECD International Migration Database and are compiled from OECD member countries.

We measure the moderating variable *cultural distance* using the Kogut and Singh (1988) index as a proxy for informal institutional risks (Schwens et al., 2010; Slangen & Beugelsdijk, 2010). The Kogut and Singh (1988) measure is based on Hofstede's (1980) original four cultural dimensions: individualism, masculinity, power distance, and uncertainty avoidance. It is the arithmetic average of the standard deviations between each cultural dimension of a country-pair and is arguably the most widely used measure used to assess the cultural distance between two countries (Shenkar, 2012). Despite criticism of the index (Shenkar, 2001), we use the measure to allow for comparability with existing work.

We use the World Bank index on governance quality to measure *governance risks* (Dikova & van Witteloostuijn, 2007; Slangen & Beugelsdijk, 2010). The index is based on Kaufman et al.'s (2009) analysis of several hundred individual variables covering 212 countries that assess different perceptions of governance. Data are collected from 35 sources from 33 organizations that include the Heritage Foundation, the World Bank, and the World Economic Forum among others. Kaufman et al. (2009) identify six dimensions of governance that include voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption. Scores are assigned for each dimension to a country and range from -2.5 to 2.5 with higher scores indicating better governance. Scores are available on a biannual basis for the 1996-2002 period and on an annual basis for the 2003-2008 period. For the years 1997, 1999, and 2001

we enter the scores of the preceding year. We reversed the scores so that higher scores indicate higher levels of governance risks. As the six dimensions are highly correlated, we created a composite governance risks index that is the arithmetic average of the six reversed dimensions in line with prior work (e.g. Dikova & van Witteloostuijn, 2007; Slangen & Beugelsdijk, 2010).

We include several control variables that may drive FDI. We control for the size of the home and host country economy through the GDP of the home country and host country (*GDP home*, *GDP host*) respectively (Clougherty & Grajek, 2008; Kobrin, 1976). GDP data come from the World Bank's World Development Indicators (WDI). We also enter the great-circle *geographic distance* between home and host country, which influences the cost of managing the affiliates and the transportation costs between MNE headquarters and foreign affiliates (Flores & Aguilera, 2007; Grosse & Trevino, 1996). Data on geographic distance is obtained from the website www.cepii.fr. We include the growth rate of the host country's GDP per capita (*GDP per capita growth*) from the World Bank's WDI as a measure for the country's market potential (Slangen & Beugelsdijk, 2010). We also enter a dummy variable to account for *common language* spoken in the home and host country (Globerman & Shapiro, 2003). Information on the language spoken in a nation is collected from *CIA's World Factbook*. Finally, we use a dummy variable to control for the *tax haven* status of the host country based on Hines and Rice's (1994) study as a low tax rate attracts inward FDI (Loree & Guisinger, 1995). All variables are lagged by 1 year to avoid potential reverse causality and because FDI decisions are likely based on previous year's data (Li & Vashchilko, 2010; Sethi et al., 2003). Time dummies are included to account for overall effects in the individual years.

As we have panel data, we test for potential heteroskedasticity and autocorrelation using Modified Wald chi-squared test and Wooldridge's (2002) test respectively. The results indicate that the data contain both heteroskedasticity and autocorrelation. Thus, we use Prais-Winsten feasible generalized least squares (FGLS) estimation that corrects the standard errors

of the regression coefficients for panel-specific heteroskedastic disturbances and autocorrelation (Wooldridge, 2003).

RESULTS

Maximum variance inflation factor is below 4.0 for all models. Correlation matrix and variance inflation factors indicate that there are only low levels of multicollinearity (Kennedy, 2008). Table 1 presents the correlation matrix.

*** Insert Table 1 about here ***

Table 2 presents the FGLS estimation results. Model 1 is the base model that only includes the control variables. Hypotheses 1a and 1b propose that home country and host country immigrants concentration have a positive influence on the total amount of bilateral FDI. We enter the measures for home country and host country immigrant concentration in Model 2. We find that the concentration of both, home country and host country immigrants, have a positive and significant influence on the level of FDI at the 0.001 p-level in all Models 2-4. Thus, hypotheses 1a and 1b receive strong empirical support.

We hypothesize that cultural distance has a positive moderating influence on the relationship between home country immigrant concentration and FDI in hypotheses 2a. We further propose that cultural distance positively moderates the relationship between host country immigrant concentration and FDI in hypothesis 2b. Model 3 includes the interaction terms for home country and host country immigrants. The interaction term for home country immigrants receives support at the 0.05 p-level while the interaction term for host country immigrants receives support at the 0.001 p-level. Thus, hypotheses 2a and 2b receive statistical support. Hypothesis 2c states that cultural distance has a stronger moderating effect for host country immigrants than for home country immigrants. To test hypothesis 2c, we compare the size of the moderating effects through the reported coefficients. This is possible because the unit of both explanatory variables, home country immigrant concentration and

host country immigrant concentration, is the same, i.e. ratio between immigrant population and country of residence population. The beta is 0.007 for home country immigrant concentration and 0.017 for host country immigrant concentration in Model 3. Cultural distance has a stronger moderating impact for host country immigrants than for home country immigrants. Thus, hypothesis 2c is supported.

Hypotheses 3a and 3b propose that governance risks positively moderate the relationship between immigrant concentration and FDI stock for home country and host country immigrant concentration respectively. We enter the interaction variables in Model 4. The interaction term for home country immigrants is positive and significant at the 0.001 p-level lending support for hypothesis 3a. The interaction variable is not significant for host country immigrants. Thus, hypothesis 3b does not receive statistical support. Hypothesis 3c states that governance risks have a stronger positive moderating effect for home country immigrants than for host country immigrants. Governance risks do not have a moderating influence for host country immigrant concentration while they have a significant and positive moderating effect for the concentration of home country immigrants in Model 4. Thus, hypothesis 3c is supported as governance risks have a stronger moderating effect for home country immigrants, because governance risks do not moderate the immigrant-FDI relationship for host country immigrants. We do not include a full model with all four interaction terms due to multicollinearity issues.

*** Insert Table 2 about here ***

Additional Analyses

We performed several additional analyses to examine the robustness of our results. First, we ran our regressions using Heckman's (1979) two-stage procedure to correct for potential sample-selection bias (Globerman & Shapiro, 2003; Slangen & Beugelsdijk, 2010). We first ran a binary cross-sectional time-series probit regression of the determinants of

whether a particular country-pair/year observation was included in the sample. A binary correction term for sample selection is generated that takes the value 1 if a country-dyad/year observation is included in our sample and 0 if it is not included. In a second step, we added this binary correction term to the FGLS regression models. The results of Heckman's (1979) two-stage procedure are highly similar to our previous results.

Second, we test whether our results are robust to an alternative specification of our two main independent variables, home country and host country immigrant concentration. We have so far measured immigrant population as the total number of residents who were born in another country. However, we do not have data on their length of stay, which may affect the ability of immigrants to function as social capital (Hernandez, 2011). Immigrants who have more recently migrated to a country may have stronger ties to their country of origin while those who have lived in the new resident country for a longer time are less connected with their country of origin. To capture the population of immigrants that have shorter tenure in the new resident country and possibly stronger ties to their country of origin, we measure immigrant population as the total number of foreign nationals from a focal country of origin. The foreign national status can be an indicator of length of stay, as longer tenure usually allows immigrants to naturalize and acquire the citizenship of their new country of residence. It is only an imperfect and rough indicator, however, as different countries have very different laws and requirements regarding naturalization. For example, France requires 5 years of continuous residence before naturalization is allowed while Denmark requires 9 years. Further, immigrants who pass the requirements to obtain the nationality of their country of residence do not always have the intention to acquire the new nationality. We replace individuals born in another country with individuals that possess a foreign nationality to construct our alternative independent variables. Data come from the OECD International Migration Database. The regressions results remain very robust, offering further support for our hypotheses.

Finally, we employ another approach to measure informal institutional risks in the form of cultural differences due to limitations associated with the Kogut and Singh (1988) cultural distance measure (Shenkar, 2001). We group cultures into clusters based on their similarities using Ronen and Shenkar's (1985) clusters classification. This approach overcomes the additive assumption of the conventional cultural distance approach (Zeng et al., 2013). The results remain robust when using Ronen and Shenkar's (1985) cultural clusters approach.

In summary, the results of our additional analyses reinforce our initial findings and offer further empirical support for our hypotheses.

DISCUSSION AND CONCLUSION

Grounded on social capital and institutional theory, we have examined the role of home country and host country immigrant social capital in facilitating FDI. Based on bilateral FDI stock and immigration data across 27 countries over the 1997-2008 period, we find that home and host country immigrants concentration positively influences FDI. We further find that the immigrant-FDI relationship is moderated by institutional risks and that the strength of the moderating effect is contingent on the type of immigrant groups involved and the type of institutional risks present due to asymmetric information and solidarity benefits. In particular, we demonstrate that immigrant social capital has a more exposed role in facilitating FDI in contexts characterized by large informal institutional risks in the form of cultural distance. We further provide empirical support that this effect is stronger for host country immigrants than for home country immigrants. We also find that governance risks have a moderating impact on the FDI-immigrant relationship for home country immigrants, but not for host country immigrants.

Implications for Research

Our study helps to advance the fields of social capital theory, institutional theory, and international business. First, it provides a nuanced understanding of immigrant social capital. Prior work proposes that immigrants are valuable sources of knowledge and trust due to their role as transnational boundary spanners. As a result, immigrant clusters may represent valuable social capital that can be accessed by MNEs. However, previous studies have not made a distinction between home country and host country immigrants in facilitating international business activities (e.g. Gould, 1994; Rangan & Sengul, 2009). To fill this gap, we argue that different immigrant groups possess distinct mechanisms in the form of information and solidarity benefits that facilitate FDI. We propose that these social capital benefits are asymmetric for home country and host country immigrants. As a result, we hypothesize that institutional risks have moderating influences of different strengths on the positive relationship between immigrant concentration and FDI contingent on the types of immigrant social capital involved and institutional contexts present.

Second, this study contributes to the understanding of institutional theory and social capital theory by integrating the two theoretical frameworks. We investigate the mechanisms behind immigrant social capital in encouraging FDI in contexts characterized by informal and formal institutional risks. Due to the ability of immigrants to provide firms with preferential knowledge of another country and to establish trust with individuals and organizations of their country of origin, we argue that immigrant social capital has a more exposed role in driving FDI in the presence of institutional risks, i.e. institutional risks positively moderate the effect of immigrant social capital on FDI. More importantly, we introduce a contingency perspective. We suggest that the moderating influence is contingent on the type of social capital and institutional risks involved based on the asymmetric information and solidarity benefits of immigrant social capital. While home country immigrants possess more current information on the political and economic situation in the host country and enjoy higher levels of trust to act in the interest of the home country firm, host country immigrants have a deeper

understanding of the host country culture and may reduce anxiety in and opposition from host country stakeholders. As a result, we demonstrate that home country immigrant social capital has a larger impact in facilitating FDI in the presence of high governance risks, whereas host country immigrant social capital has a more exposed role when cultural distance between home country and host country is large.

Our study further contributes to international business and provides evidence for the positive influence of immigrant concentration on the total amount of bilateral FDI. While prior studies have often employed single home or host country and single year data due to data limitations, we are able to use annual immigration data across multiple host and home country-pairs over an 11-year period. This may help corroborate the validity of the empirical results of our analyses.

Practical Implications

This study has implications for practitioners. It shows that immigrants encourage foreign investments and can help mitigate difficulties resulting from a variety of risks when doing business abroad. These insights can be useful for managers and policy makers alike. Managers can employ home country and host country immigrants in managing their foreign investments. As immigrants have contacts to and experience in two or more nations, they tend to have better access to preferential information and enjoy higher levels of trust compared to non-immigrant managers and may serve as bridges to other countries. The insights of our study can further help policy makers understand that immigrants have a positive influence on inward investment activities. An immigration-friendly policy that helps to attract immigrants from other countries also helps to draw inward foreign investments, particularly in countries where the political and economic landscape is risky.

Limitations and Future Research

This study has some limitations and offers opportunities for future research. First, we use aggregate immigration and FDI data. While using aggregate immigration data is appropriate for our study as we also have an aggregate measure for the dependent variable, we cannot assess immigrant characteristics and heterogeneities. However, accounting for heterogeneities can be important as immigrants' characteristics such as their level of education and length of stay may significantly influence their impact as social capital (Foley & Kerr, 2013; Gillespie et al., 1999). Further, the use of aggregate FDI data does not allow us to examine the effects of firm-level characteristics. Examining firm-level data in the context of immigrant social capital can be important, however, and can lead to additional insights (Hernandez, 2011). Future research may employ firm-/individual-level data in order to provide a more nuanced understanding of firm-/individual-level characteristics on the role of immigrant social capital in international business.

Second, we do not examine immigrants' distinct abilities developed through their background and experience in two different countries and their familiarity with two different cultures. While assessing the role of bi-national and bicultural immigrants in serving as transnational bridges for MNEs between their country of origin and their country of residence is intuitive and in line with prior research, the knowledge and skills gained by biculturals are not limited to their country of origin and country of residence (Brannen & Thomas, 2010; Thomas et al., 2010). Individuals who have experience in two different cultures have gained skills that can be employed to span boundaries across multiple cultures beyond the two countries and help solve conflicts and overcome challenges resulting from cultural friction that are inherent in the operation of MNEs (Hong, 2010; Shenkar, 2012; Shenkar et al., 2008). Investigating immigrants' distinct abilities developed through their country bonds in addition to their ties to two different national cultures and their resulting impact on international business phenomena can be a promising avenue for future research.

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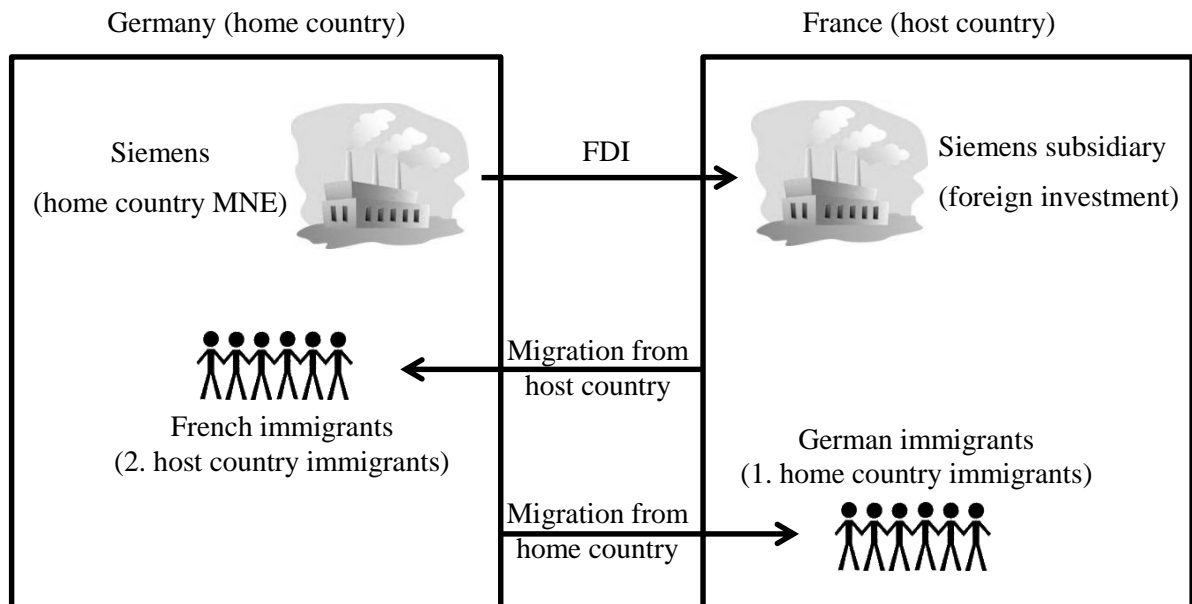
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FIGURES

Figure 1

Home country immigrants and host country immigrants.



TABLES

Table 1

Correlation matrix.

	Mean	Std. dev.	1	2	3	4	5	6	7	8	9	10
1 FDI Stock	8.31	2.22	1									
2 Home country immigrants	2.31	5.89	0.156	1								
3 Host country immigrants	2.13	5.22	0.196	0.140	1							
4 Cultural distance	6.48	5.11	-0.255	-0.188	-0.214	1						
5 Governance risks	-1.53	0.30	-0.127	-0.079	0.029	0.099	1					
6 GDP home	1.89	3.53	0.298	0.020	-0.114	-0.043	0.057	1				
7 GDP host	1.80	3.40	0.287	-0.125	0.038	-0.045	0.255	-0.128	1			
8 Geographic distance	3.87	4.91	-0.077	0.003	0.017	-0.101	-0.010	0.215	0.222	1		
9 GDP growth	2.66	1.55	-0.101	0.028	0.017	-0.113	0.082	0.021	-0.074	0.135	1	
10 Common language	0.13	0.33	0.278	0.411	0.435	-0.334	-0.021	0.086	0.092	0.220	0.038	1
11 Tax haven	0.03	0.17	-0.048	0.136	-0.051	-0.040	-0.050	-0.014	-0.082	-0.008	0.199	0.071

Notes: 1,057 observations. ^{a)} Logged to obtain normal distribution. Correlations ≥ 0.06 or ≤ -0.06 are significant at the 0.05 level.

Table 2

Effects of immigrant concentration on FDI stock, 1997-2008, FGLS estimation results.

		Model 1	Model 2	Model 3	Model 4
Home country immigrants	H1a		0.033*** (0.009)	0.058*** (0.014)	0.073*** (0.013)
Host country immigrants	H1b		0.057*** (0.011)	0.132*** (0.018)	0.062*** (0.011)
Home country immigrants X cultural distance	H2a			0.007* (0.003)	
Host country immigrants X cultural distance	H2b			0.017*** (0.003)	
Home country immigrants X governance risks	H3a				0.265*** (0.056)
Host country immigrants X governance risks	H3b				-0.015 (0.029)
Cultural distance		-0.074*** (0.011)	-0.067*** (0.011)	-0.036** (0.012)	-0.063*** (0.01)
Governance risks		-2.021*** (0.181)	-2.053*** (0.178)	-2.188*** (0.178)	-1.754*** (0.189)
GDP home		0.248*** (0.015)	0.262*** (0.015)	0.259*** (0.015)	0.261*** (0.015)
GDP host		0.276*** (0.016)	0.288*** (0.016)	0.282*** (0.016)	0.297*** (0.016)
Geographic distance		-0.137*** (0.011)	-0.132*** (0.011)	-0.127*** (0.011)	-0.127*** (0.011)
GDP growth		-0.056 (0.049)	-0.057 (0.049)	-0.086† (0.048)	-0.044 (0.048)
Common language		1.394*** (0.165)	0.773*** (0.191)	0.805*** (0.189)	0.559** (0.196)
Tax haven		-0.360 (0.311)	-0.306 (0.309)	-0.295 (0.305)	-0.198 (0.306)
Observations		1,057	1,057	1,057	1,057
Dyads		272	272	272	272
Wald (chi2)		914.30***	984.89***	1049.63***	1028.47***

Estimation with time dummies. Standard errors are in parentheses.

†p < 0.1; *p < 0.05; **p < 0.01; ***p < 0.001.