PROGRAM ON U.S.-JAPAN RELATIONS
Weatherhead Center FOR INTERNATIONAL AFFAIRS
HARVARD UNIVERSITY

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JAPANESE INVESTMENT LOCATION DECISION IN THE U.S.: EVIDENCE OF A HOME-COUNTRY FIRM BANDWAGON EFFECT

Rémy Magnier-Watanabe

Harvard Program on U.S.-Japan Relations
Occasional Paper Series
2019-04

https://programs.wcfia.harvard.edu/us-japan/research

Please note: This article has been accepted for publication in Asia Pacific Business Review, published by Taylor & Francis.

Magnier-Watanabe, R. (2019). Japanese investment location choice in the US: A home-country firm bandwagon effect. Asia Pacific Business Review, 26(3), 239-264.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

FDI	Foreign Direct Investment
JETRO	Japan External Trade Organization
MNE	Multi-National Enterprise
NAICS	North American Industry Classification System

Introduction

Historically, Japan relied on exporting rather than investing abroad to finance its development (Murphy, 2010). Following a classical internationalization model of increasing commitment (Johanson and Vahlne, 1977), Japanese firms complemented their export-led growth by conducting outward foreign direct investment (FDI) to respond in part to the demands of the new globalization order. This new order has been characterized by an "increasing cross-border mobility of goods, services, capital and people facilitated by technological change, the rise of multinational enterprises (MNEs) and the liberalizing policies of nation states and international regulatory institutions", leading to "growing economic interdependence and integration between countries" (Roberts and Fuller, 2010, p. 902). Indeed, economic growth, relative political stability, deregulation, and advances in communication technologies and transportation, which marked the years after World War II, created favorable conditions for Japanese companies to engage in FDI. These changing externalities brought about by globalization have been reshaping market imperfections, which by nature prevent perfect competition and therefore optimum operation.

The field of international business (IB) has argued that the raison d'être for MNEs is their ability to exploit those market imperfections (Caves, 1971) by internalizing some of their operations to either reduce costs or increase benefits through better quality or innovation (Hymer, 1976; Buckley and Casson, 1976). By the same token, Japanese firms have been increasingly engaging in FDI as one way to bypass imperfections and exploit market opportunities through internal operations. Data from the Japan External Trade Organization (JETRO), a quasi-governmental agency, indicates that Japan's outward investments have been increasing steadily over the past 20 years, with a year-on-year growth rate of about 9.1%, while its economy has contracted by 0.5% over the same period, as measured by GDP in real terms (JETRO, 2018). The

years 2016 and 2017 logged record outward FDI, USD 174 billion and USD 169 billion respectively, since comparable numbers were first documented in 1996. Over almost the same period, between 1996 and 2016, Japan's exports of goods and services in constant 2010 US dollar, went from USD 438 billion to USD 981 billion, registering a year-on-year growth rate of about 3.9%, less than half than that of outward investment (World Bank, 2018). It has therefore become clear that the growth of Japanese firms originates today more from outward investment than exports.

Over the past few years, the gap between inward FDI flows to developing and developed economies has been shrinking, and as of 2017, the latter was only 6% lower than the former, amounting to USD 671 billion compared to USD 712 billion (UNCTAD, 2018). This trend notwithstanding, the United States (US) remains today the largest investment destination for Japan, attracting about 30% of its total investment, or USD 491 billion out of its stock of USD 1.55 trillion as of 2017 (JETRO, 2018)[1]. Furthermore, Japan has consistently been ranking as the second largest foreign direct investors in the US economy, after the United Kingdom (Cortez, 2017). And the country holds by far the largest stock of FDI in the US, 68%, from firms headquartered in Asia-Pacific (BEA, 2017)[2].

What is driving Japanese firms to continue investing heavily in the US? A survey conducted in 2016 by JETRO sheds light on some of the drivers and impediments for investments by Japanese companies in Southern California (JETRO, 2016). It informs on the factors that likely influence location choice for Japanese firms having decided to invest in the US. As for advantages

[1] The Japan External Trade Organization (JETRO) figures were first released in Japanese yen and then converted to US dollars using Bank of Japan average inter-bank rates for the applicable period; accounting and rate conversion differences may explain differences between the numbers from BEA (2017) and those from JETRO (2018).
[2] The US Bureau of Economic Analysis (BEA) figures are based on inward FDI position by Ultimate Beneficial Owner (UBO) data; UBO data measure of investment assigns FDI to the country of ultimate ownership.

of California as an investment destination, Japanese firms highlighted market size (58.3%), size of the Japanese community (33.8%), logistics/transportation (20.1%), and geographical proximity to Japan (19.8%) (n=343). As for impediments, they cited labor costs including benefits (76.4%) and taxes (55%) (n=318) (JETRO, 2016).

So economic attractiveness aside, if California is any indication of the country at large, do Japanese investing firms really give much importance to the presence of other Japanese actors when selecting a state for their operations? This paper aims to examine the effect of same-country firm concentration on Japanese firm FDI location decision in the US at the subnational level, in other words when deciding between states as competing locations. This work builds on previous research that has highlighted the importance of location-specific factors at the subnational level when deciding to invest in a given country (Beugelsdijk and Mudambi, 2014). Hernandez (2014) showed that firms make subnational location decisions in order to maximize learning and knowledge acquisition opportunities, partly drawn from the concentration of immigrants, established home-country firms, and industry. He confirmed that states with higher immigrant concentration witnessed higher FDI by firms from the same countries, but that the concentration of home-country firms had no effect (Hernandez, 2014). Blanc-Brude, Cookson, Piesse, and Strange (2014), in an extensive review of empirical studies of FDI location choice between countries at the regional and subnational levels, concluded that despite inconsistent findings, location-specific characteristics consisting of local market attractiveness, agglomeration advantages, labor cost and quality, infrastructure, and favorable institutions, mattered most.

This paper contributes to the existing literature on FDI decision location at the subnational level in two ways. First, identifying the current motives of Japanese firms for FDI location at the subnational level is indispensable. Hennart (2016) argued that much FDI research remains to be

done since some phenomena are still not yet fully explained and correctly understood. In particular, he singles out Japanese firms whose investments have not always conformed to mainstream theories. As shown above, the US remains a preferred destination for Japanese investment and as such should be carefully studied. Therefore, in this research, I use a single source country, Japan, and a single receiving country, the US, in order to better isolate the relationship between firm location decision at the subnational level and state attributes.

Second, while research on the bandwagon effect in FDI is not new, past studies have not addressed the state of recent Japanese FDI in the US. Previous works have not explicitly considered FDI location decision of Japanese investment in the US at the subnational level. Many are dated and in need of updated evidence, Most focus on aggregate data for either the source country, destination country, or both. They are concerned with country-level rather than subnational location choice. And some use small-sample qualitative methods calling for more rigorous empirical scholarship. For instance, Henisz and Delios (2001) studied the plant location decisions of 2,705 Japanese subsidiaries over a set of 155 countries over the period 1990-1996. Lu (2002) considered entry mode choice, not location decision, in a sample of 1,194 manufacturing greenfield subsidiaries of Japanese manufacturing firms into 12 developed countries as of 1999. Hernandez (2014) considered the combined FDI from 27 countries into the US between 1998 and 2003, without disaggregating the results by source country. And Hemmert and Jackson (2016) used a qualitative comparative case-study approach contrasting the internationalization processes of two Japanese and two Korean firms.

I first review briefly the literature on the motives for FDI, FDI location choice, and the bandwagon effect, with an emphasis on Japanese investment. Then I present hypotheses derived

from the previous review and the logit regression method used to test them. Last, the results are followed by a detailed discussion and implications for research and practice.

The Motives for FDI

Before examining the determinants of foreign location choice in detail, it is critical to first review the motives for FDI as they can also help explain location decisions. The literature on foreign market entry has been using several theoretical perspectives, namely the eclectic paradigm (Dunning, 1977), transaction cost economics (Brouthers and Hennart, 2007), institutional theory (Yiu and Makino, 2002), social capability/network theory (Nahapiet and Ghoshal, 1998), and the resource-based view (RBV) (Barney, 1991). The key contextual dimensions examined in past research consist of home markets (factors of production, institutions), host markets, distance (cultural and geographic distance), industry, and firm characteristics (Laufs and Schwens, 2014).

Dunning (1977, 1993)'s eclectic paradigm, is quite exhaustive since it provides scenarios where FDI is attractive and it details firm motives for FDI. It is often referred to as the OLI framework and posits that firms will engage in FDI when ownership-, location-, and internalization-advantages exist together. Ownership advantages denote firm-specific advantages, derived from the firm's tangible and intangible resources, which justify operations in a foreign country; such advantages include production capacity, scale, capital, skilled labor, knowledge, brand, intellectual property, and technology and confer superior productivity (Helpman, Melitz and Yeaple, 2004). Location advantages derive from the benefits linked to operating in a particular location, lowering production and transportation costs, and often taking the form of vertical or horizontal investments; those consist of access to attractive markets with cheaper or more abundant factors of production such as land and labor, lower taxes and duty exemptions a large domestic

demand, and a favorable institutional environment (Twomey, 2000). Internalization advantages are gained from keeping activities in-house as opposed to contracting with outside players, which is inherently risky since it carries higher transaction costs and the threat of technology spillover; these advantages build on the absence of searching and negotiating, larger scale, and greater control of production and distribution. Different combinations of advantages affect entry mode choices, whereby ownership advantages only will lead to export, ownership- and location-advantages together to licensing, and all three advantages to FDI (Dunning, 2000).

Firms engage in FDI for various reasons and Dunning and Lundan (2008) classify them into the four categories of resource-seeking, market-seeking, efficiency-seeking, and strategic asset- or capability-seeking motives. These motives originate from the firm-specific factors or advantages sought mentioned in the OLI model, and will act as screening lenses for potential host locations and their associated advantages. Resource-seeking FDI goes after available abundant natural resources and labor; market-seeking FDI pursues host country market size, growth and income; efficiency-seeking FDI aims to rationalize the production of dispersed activities and strives for more attractive production costs overall; and strategic asset-seeking FDI targets distinctive technology, knowledge, or know-how to complement its own portfolio or preempt competition (Makino, Lau, & Yeh, 2002).

FDI Location Choice

Foreign location choice in the IB literature is considered a strategic decision whereby the firm considers location to become a source of competitive advantage (Kim and Aguilera, 2016). And the most recent reviews of the literature on location choice agree that location determinants fall into the two broad categories of firm or industry-specific location determinants on the one

hand and country-specific determinants on the other hand (Kim and Aguilera, 2016; Jain, Kothari, and Kumar, 2016; Nielsen, Asmussen, and Weatherall, 2017).

Jain, Kothari, and Kumar (2016) analyzed 151 articles between 1975 and 2015 and proposed a total of 9 factors distributed within these two categories: firm-specific determinants consist of firm experience, customer relationships, top management background and networks, and industry characteristics; and country-specific determinants comprise inter-regional ties, the macro-economic environment, distance between home and host countries, availability of natural resources, and agglomeration advantages. They further argued that depending on the motives for FDI, the firm will focus on particular determinants from the list above in making its location decision (Jain, Kothari, and Kumar, 2016).

These predictors of location choice are consistent with those uncovered by Nielsen, Asmussen, and Weatherall (2017) in a review of 153 quantitative articles published between 1976 and 2015. In addition to location choice hinging on the characteristics of the destination location and those of the investing firm, they also highlighted those of the dyadic relationship between the parent firm and the host location. The destination location is described based on its economic attractiveness, institutions, and agglomeration advantages. Economic factors are drawn from local demand, tax rates, wages, infrastructure, and human capital, consistent with the eclectic paradigm's location advantages (Dunning, 1988) and comparative advantages from trade theory (Hall and Soskice, 2001). Host-country factors consist of formal institutions and the existence of special economic zones, recognizing the importance of local institutional environments (Kostova, Roth, and Dacin, 2008). Agglomeration advantages, which result in clustering of location choice, consist of intra-industry firm concentration, firm concentration, foreign firm concentration, home-country firm concentration, global cities, and congestion costs. These intra- and inter-industry

agglomeration advantages acknowledge the significance of network externalities in locating business activities (Krugman, 1991).

The characteristics of the investing firm are largely derived from the resource-based view (Barney, 1991) which posits that firms will select a foreign location which helps them exploit and augment their competitive advantages. Nielsen, Asmussen, and Weatherall (2017) note that strong intangible assets will make some firms seek attractive or unattractive locations in terms of economic appeal, institutions, and agglomeration advantages, depending on whether they can offset the liability of foreignness of the latter (Zaheer, 1995), as well as on their level of international experience (Johanson & Vahlne, 2009). Last, the interplay of location and firm characteristics gives rise to dyadic factors related to firm experience in a specific location (Takeuchi, Tesluk, Yun, & Lepak, 2005) and distance between home and host countries (Shenkar, 2012), that have been found to greatly affect FDI location decisions. But how do these firm- and country-specific location determinants hold up when a strong bandwagon effect exist?

The Bandwagon Effect

Past research on foreign location choice has noted the role of agglomeration advantages, and notably that of home-country firm concentration. This bandwagon effect (Banerjee, 1992) can lower search costs and eventually ease and reduce the uncertainty of investment decisions (Gimeno, Hoskisson, Beal, and Wan, 2005). Choosing a location with a higher concentration of related businesses, especially in manufacturing, can result in better profitability thanks to positive spillovers among the clustered firms (Krugman, 1991). Belderbos, Olffen and Zou (2011) note that agglomeration benefits include infrastructure, skilled labor, and the presence of reliable suppliers and business partners.

Taking into account other firms, their knowledge, and their relationships in a particular locale is at the heart of social network theory. Social networks stem largely from personal relationships, social ties, corporate connections, and inter-organizational bonds. They are defined alternatively based on the opportunities afforded by relationships (Burt, 1997), knowledge exchanged for business purposes (Zhou, Wu, and Luo, 2007), and patterns of connections (Scott, 2017). Social networks are the foundation for social capital which describes the knowledge rooted and accessible through one's interpersonal network (Nahapiet and Ghoshal, 1998).

Social networks are a valid concern when deciding to locate a foreign investment since they have been found to enable knowledge exchange and resource access in general within the organization (Wang, Fang, Qureshi, and Janssen, 2015) and between firms (Díez-Vial, and Montoro-Sánchez, 2014). Social networks have also been used when looking at internationalization processes. Chen and Chen (1998) examined how internal and external network ties affected location choices of FDI of Taiwanese firms. Jean, Tan, and Sinkovics (2011)'s research showed that ethnic ties among top managers of Taiwanese firms facilitated location choice in FDI decisions.

This bandwagon effect has also been documented as mimetic entry (Haveman, 1993) whereby imitating other firms' FDI location decisions is perceived as mitigating the uncertainty from an unknown environment, including in the case of Japanese companies (Chan, Makino, and Isobe, 2006; Belderbos, Olffen and Zou, 2011).

Same-Country Firm Concentration

Ethnic ties afford a special type of social networks of individuals based on ethnicity (Jean, Tan, and Sinkovics, 2011), while ethnicity consists of characteristics such as "national origin,

mother tongue, ethnic background, and birth region" (Blau, Blum, and Schwartz, 1982, p. 55). Ethnic ties were found to have a greater effect on location choices of foreign and domestic entrants in the services offshoring industry in India, relative to cluster capabilities (Zaheer, Lamin, and Subramani, 2009). And immigrant concentration and the presence of home-country firms have already been identified as key attraction factors for manufacturing FDI (Foad, 2012; Hernandez, 2014; Javorcik, Özden, Spatareanu, & Neagu, 2011; Park and Leigh, 2017). I extend the concept of ethnic ties beyond individuals to include networks of corporations with the same national origin, headquarter language, or historic incorporation region. This extension is consistent with previous findings whereby the shared ethnicity of managers from different firms acts as an important inter-organizational tie (Liao and Welsch, 2003; Luo and Chung, 2005), which is the foundation of shared corporate ethnicity. Familiarity with a target country's language was shown to reduce transaction costs and further driving FDI (Kim, Liu, Tuxhorn, Brown, and Leblang, 2015). This broadening of ethnic ties is particularly justified given the high number of expatriates used by Japanese firms in their international subsidiaries (Belderbos and Heijltjes, 2005).

Evidence of mimetic behavior among Japanese firms making investment location decisions has already been found. These previous studies established the existence of a co-national bandwagon effect for Japanese FDI, albeit not at the subnational level, in the distant past, or without empirical data (Henisz and Delios, 2001; Hemmert and Jackson; 2016). In the specific case of Japanese companies entering the US, Hernandez (2014) took the example of Honda which selected California in 1959 to sell motorcycles, partly based on the strong Japanese community and presence of other Japanese firms in manufacturing and other related industries (Christiansen and Pascale, 1983). Although this case is somewhat dated, based on the JETRO survey introduced earlier about the appeal of California as a Japanese investment location, it is clear that the size of

the Japanese community, led by the number of Japanese firms, still matters today. Therefore, I hypothesize that when Japanese firms invest in the US:

Hypothesis 1: There is a positive relationship between nationwide Japanese firm percentage by state and the likelihood of Japanese firms having a subsidiary in that state.

International Experience

However, investing firms differ in their level of international experience, which has been recognized as a key resource in the literature related to internalization (Johanson and Vahlne, 1977), to the resource-based view (Barney, 1991) and to transaction cost economics (Brouthers and Hennart, 2007). Instead of seeking externalities to exploit when competing internationally, RBV claims that the firm should look internally to build competitiveness, and those resources can be tangible such as assets abroad or intangible such as the level of knowledge and practice dealing with foreign environments. In transaction cost economics, external uncertainty is pegged to the overall international experience of the firm, which can be inferred from its number of years of experience abroad, and ratio of international to total investments (Brouthers and Hennart, 2007). International experience and uncertainty are therefore negatively associated, whereby firms with some international experience or better yet, experience of the host country, albeit in another state, will suffer from less uncertainty. It follows that, when making foreign location decisions, less experienced Japanese firms, which cannot rely on their own international management knowledge and capabilities, will rather favor locations with a higher concentration of Japanese firms. Therefore, I hypothesize that when Japanese firms invest in the US:

Hypothesis 2: The positive relationship between nationwide Japanese firm percentage by state and location choice is stronger for firms with low levels of experience in the US than for firms with high levels of experience in the US.

Knowledge Spillovers

As mentioned previously, industry clustering generates positive spillovers known as agglomeration benefits in the form of industry-specific knowledge, pools of skilled labor, quality inputs, and lower transportation costs (Marshall, 1920). Industry activity can also act as an institutional force which supports learning within its network. Neo-institutionalists contend that isomorphic pressures compel actors to seek legitimacy by conforming to forces that are coercive, derived from laws, mimetic, by imitation of those perceived to be successful, and normative, through professionalization (DiMaggio and Powell, 1983). At the industry level, these forces create constraints which act as a frame of reference reducing uncertainty and supporting learning. For a given category of related businesses, normative pressures originate from social obligations and expectations resting on norms and values dictating what is desirable and how to act (Scott, 2008). A foreign firm will therefore give more consideration to home-country firm concentration in locations where there are no recognizable normative forces and strong agglomeration advantages drawn from an industry cluster. Industry concentration can be a substitute for home-country firm concentration, therefore decreasing the home-country bandwagon effect. Hence, I hypothesize that when Japanese firms invest in the US:

Hypothesis 3: The positive relationship between nationwide Japanese firm percentage by state and location choice is stronger in states with low levels of activity in the same industry as the subsidiary than in states with high levels of activity in the same industry as the subsidiary.

Industry growth can also attract new entrants to a location since it may signal future and yet unrealized agglomeration benefits. Some firms may even weigh both industry concentration and growth when deciding where to locate; the competition effect resulting from established industry clusters, whereby high concentration increases competition and drives away new entrants (Belderbos, Olffen and Zou, 2011), may instead render growing but not yet saturated locations more attractive. Foreign firms are lured to countries where their industry is experiencing a high growth rate at the national level, and these new competitors consider where to enter the market. Without prior experience or additional information about subnational locations, new entrants are more likely to yield to mimetic pressures. These firms will make entry decisions based on knowledge drawn from local social networks made up of home-country firms. Shared corporate ethnicity acts as a powerful conduit for trust-building, knowledge acquisition, and eventually legitimacy with headquarters, further amplifying the bandwagon effect. Consequently, when national industry growth is higher, Japanese firms will prospectively elect to enter a state where other Japanese firms are already located, since their presence acts as a proxy signaling an attractive location. Therefore, I hypothesize that when Japanese firms invest in the US:

Hypothesis 4: The positive relationship between nationwide Japanese firm percentage by state and location choice is stronger for firms in fast-growing industries than for firms in slow-growing industries.

Knowledge spillovers are of special concern for firms in high-technology industries. Glasson, Chadwick, and Smith (2006) noted the plethora of definitions of high-technology firms, but they contend that most are related to the two themes of innovation and technology intensity. This signifies that high-tech firms are characterized by the introduction of new products, processes, and services, by using technology for inputs and/or outputs. Therefore, high-technology firms have

activities which are more knowledge-intensive because the source of their competitive advantage originates from the creation and application of tacit knowledge, which calls for highly-skilled and specialized personnel and business partners (Nonaka and Takeuchi, 1995). The acquisition and transfer of tacit knowledge among high-tech companies has been shown to be greatly facilitated by a shared language (Ismail Al-Alawi, Yousif Al-Marzooqi, and Fraidoon Mohammed, 2007), common norms and beliefs (Hansen, 1999), and established patterns of communication (Mueller, 2012), which are inherently prevalent among home-country firms. For that reason, high-tech firms – rather than low-tech businesses – will seek locations with higher concentrations of same-country firms, in order to derive benefits from a knowledge-rich environment. Their activities depend chiefly on external networks to access crucial sources of knowledge (Krugman, 1991) and on cognitive frames associated with taken-for-granted shared understandings (North, 1990). Therefore, I hypothesize that when Japanese firms invest in the US:

Hypothesis 5: The positive relationship between nationwide Japanese firm percentage by state and location choice is stronger for firms in high-technology industries than for firms in low-technology industries.

Methodology

Sample

I extracted data from the Directory of Corporate Affiliations on Japanese subsidiaries which were established in the US between 2003 and 2017. This database, published by LexisNexis, is considered one of the most complete sources of information on firms and their affiliates. It lists companies with revenue over USD 1 million and at least 300 employees, as well as their industry codes (NAICS) (Census Bureau, 2017). This 15-year period allows for a long enough period of

observations, a sufficient number of cases, and it does not overlap with Hernandez (2014)'s research on FDI in the US which covered 1998 to 2002.

To avoid reverse-causality, I only considered first entries into states where parent companies do not yet have a subsidiary in the same industry (Chung and Alcácer, 2002; Hernandez, 2014). The database listed 208 new entries by Japanese parent companies; however, a case-by-case verification of each entry revealed that only 143 entries were in states where the 167 parent companies did not have any prior subsidiaries in the same industry.

Method

A logistic regression (logit model) is applied since the outcome variable, state entry, is dichotomous, with each US state considered to be a potential investment location (Hosmer Jr., Lemeshow, and Sturdivant, 2013). A probit regression could have alternatively been selected since it would yield similar results, albeit with regression coefficients more difficult to interpret and therefore necessitating further calculations (IDRE, 2018).

Although there are 143 new-to-state Japanese investments over the period, the dataset consists of 7,150 cases since for each new-to-state investment, there are 50 recorded cases whereby the state in which the firm entered is coded as 1 and the other 49 states in which the firm did not enter is coded as 0. Consequently, the sample of 7,150 cases includes 143 state entries and 7,007 non-entries.

Variables

Location choice. The dependent variable state entry is coded as 1 for a first entry by a parent company in a given state and industry, and 0 otherwise. Again, only entries in states where

the parent company does not yet have a subsidiary in the same industry are considered. The NAICS industry codes are used to distinguish between different industries.

Nationwide Japanese firm percentage by state. It is measured as the percentage of Japanese firms to all Japanese firms in the country, reflecting the number of subsidiaries of Japanese parent companies in the state divided by the total number of subsidiaries of Japanese parent companies in the US in 2010 (BEA, 2018). The year 2010 was selected as it is in the middle of the period 2003-2017.

Prior experience. It determines firm experience on the basis of the number of states in which the parent company had subsidiaries prior to the year of entry. The sample was then divided between low- and high-experience firms, based on the mean number of states where present overall.

Industry concentration. Industry concentration is the intensity of industry activity as the share of total U.S. employment in each subsidiary's industry by state in 2010, based on first-digit NAICS codes. The sample was then grouped into firms in low and high industry concentration, based on the mean of the state's share of industry employment.

Industry growth rate. The previous three-year industry growth rate was calculated for each year and each industry using state employment data from the US Bureau of Labor Statistics (BLS, 2019) and NAICS codes.

Knowledge intensity. High-technology industries are considered to be more knowledge-intensive, and the US Bureau of Labor Statistics provides a list of NAICS industries identified within the range of years surveyed in this study. Based on Hecker (2005) and the US Census Bureau (2019), high-tech industries refer to those which "participate in the design, manufacture, research, or distribution of computer and other high-tech goods according to the North American Industrial Classification System."

Control variables

Several state-level control variables were added to the analysis, as they have been showed to affect the location of FDI considering labor input or consumer markets, or both (Chung and Alcácer, 2002; Hernandez, 2014). These state-level variables consist of the following with data sources indicated in parentheses: Japanese to all firms ratio by state measured as the number of subsidiaries of Japanese parent companies in the state divided by the total number of firms in the state in 2010 (BEA, 2018); population education measured by the spending amounts per pupil for public elementary and secondary school education in each state in 2010 in USD (Census Bureau, 2018b); real GDP per capita by state in USD (BEA, 2018); state population size (Census Bureau, 2018a); state incentives to attract FDI, assessed with the number of incentive programs offered in each state (C2ER, 2018); state corporate tax rate (TPC, 2018); the existence of state right to work laws (NCSL, 2018); state unemployment rate (BLS, 2018); total energy average price in the industrial sector by state in USD per million BTU (EIA, 2018); the presence of both Japanese government-certified overseas educational institutions (MEXT, 2018) and private Japanese language supplementary schools (USAJPN, 2018) aimed at the children of Japanese employees, as they can help attract Japanese expatriates and their family; and the distance between Tokyo and each state capital in nautical miles.

Results

Descriptive statistics

Figure 1 shows new entries by year and industry and Table 1 by state over the period. The sample data shows a clear decline in new-to-state investments in all industries, with a noticeable drop in 2009 following the Lehman Shock.

Overall, manufacturing investments account for 36% of all new-to-state FDI, information, finance and insurance investments for 31%, and wholesale and retail trade for 26%, for a combined 93% among investments in these three industries. In terms of location, the most attractive states are California (33%), Illinois (10%), Michigan (7%), New-York (6%), and Massachusetts (5%). Table 2 indicates the mean, standard deviation, minimum, and maximum for all variables in the study.

Table 3 shows high cross-item correlations between Japanese to all firms ratio by state and state-level industry concentration (0.909, $p<0.01$) and between state population size and state-level industry concentration (0.957, $p<0.01$) and nationwide Japanese firm percentage by state (0.929, $p<0.01$). These high correlations indicate that Japanese firms, relative to all firms, seek states with higher intra-industry agglomeration benefits, and are attracted to more highly-populated states.

Models

Model 1 excludes the main predictor nationwide Japanese firm percentage by state and indicates which control variables have a significant positive effect on state entry: state-level industry concentration ($p<0.001$), Japanese to all firms ratio by state ($p<0.05$), state right-to-work laws ($p<0.05$), state unemployment rate ($p<0.05$), the presence of official ($p<0.001$) and supplementary ($p<0.05$), and the number of state FDI incentives ($p<0.001$).

Model 2 includes nationwide Japanese firm percentage by state and confirms a positive correlation with state entry ($p<0.001$). While the sign and significance of the logit coefficients are meaningful, they cannot be interpreted directly (IDRE, 2018). Because a logistic regression models a binary outcome variable, here state entry, estimates indicate the log of odds and not the odds themselves. Therefore, we need to transform the log of odds into odds to interpret the results and

examine the average marginal effect (AME) by calculating the average change in probability of state entry for a 1% increase in nationwide Japanese firm percentage by state. The fitted model indicates that, holding all variables at a fixed value, the average marginal effect for state entry (versus non-entry) by a Japanese firm are exp(111.329*0.01) = 3.044, $p<0.001$. In terms of percent change, the odds increase by 204% for a one-percent increase in nationwide Japanese firm percentage by state since (3.044-1)/100 = 204% (IDRE, 2018). This provides support for H1, since there is a positive relationship between nationwide Japanese firm percentage by state and the likelihood of Japanese firms having a subsidiary in that state.

Besides nationwide Japanese firm percentage by state, several other variables have a statistically significant effect on state entry. However, after converting these coefficients to odds ratios to make interpretation feasible, only state right-to-work-laws [((exp(0.806)-1)/100) = 124%, $p<0.05$] and state-level industry concentration [((exp(31.257*0.01)-1)/100) = 37%, $p<0.05$] have both a significant and a sizable effect on state entry. This suggests that, overall, when selecting a state in which to locate FDI, Japanese firms tend to favor states with higher nationwide Japanese firm percentage, right-to-work laws, and higher industry concentration.

Models 3 and 4 split the sample between Japanese firms with and without prior experience in the US, based on whether they had at least one affiliate in the US prior to their entry considered in the period 2003-2017, albeit in a different state. Nationwide Japanese firm percentage by state has a positive correlation with state entry for firms with both low and high prior experience ($p<0.05$). Although the relationship appears to be stronger for firms with low prior experience, translating into odds of 272% [((exp(131.275*0.01)-1)/100), $p<0.05$] vs. 171% [((exp(99.687*0.01)-1)/100), $p<0.05$] for firms with high prior experience, the difference between the coefficients is not statistically significant ($p=0.949$). Therefore, H2 is not supported.

Models 5 and 6 separate state-level industry concentration, depending on whether it is higher than the mean. Nationwide Japanese firm percentage by state has a positive relationship with state entry for firms where state-level industry concentration is low ($p<0.001$) but a negative effect, albeit not significant, for firms where state-level industry concentration is high.

However, the difference between the two is significant ($p<0.001$) and when state-level industry concentration is low, a one-percent increase in nationwide Japanese firm percentage in the state results in a 211% [(exp(113.315*0.01)-1)/100] rise in odds of firms entering that state ($p<0.001$). When state-level industry concentration is high, a one-percent increase in nationwide Japanese firm percentage in the state causes a 100% [(exp(-1295.225*0.01)-1)/100] drop in odds of firms entering that state, although it is not significant. H3 is therefore supported, since data shows there is a positive relationship between nationwide Japanese firm percentage by state and location choice, which is stronger in states with high levels of activity in the same industry as the subsidiary than in states with low levels of activity in the same industry as the subsidiary.

Models 7 and 8 suggest that national industry growth rate, whether it is lower or higher than the mean growth rate, has no effect on the relationship between nationwide Japanese firm percentage by state and state entry, since the difference between coefficients is not statistically significant ($p=0.839$). Therefore, H4 is not supported. However, we can note that when national industry growth is low, a one-percent increase in nationwide Japanese firm percentage in the state results in a 174% [(exp(100.918*0.01)-1)/100] rise in odds of firms entering that state ($p<0.05$), and when state-level industry concentration is high, a one-percent increase in nationwide Japanese firm percentage in the state causes a 500% [(exp(179.129*0.01)-1)/100] rise in odds of firms entering that state ($p<0.05$).

Models 9 and 10 imply that, in the relationship between nationwide Japanese firm percentage by state and state entry, there is no significant difference based on whether firms' industries are low-tech or high-tech ($p=0.581$). In effect, there is no support for H5. We can observe that in low-tech industries, a one-percent increase in nationwide Japanese firm percentage in the state results in a 200% [(exp(109.725*0.01)-1)/100] rise in odds of firms entering that state ($p<0.05$), and in high-tech industries, a one-percent increase in nationwide Japanese firm percentage in the state causes a 244% [(exp(123.491*0.01)-1)/100] rise in odds of firms entering that state ($p<0.05$).

Simultaneity and Reverse Causality

When handling cross-sectional data, there is always a concern that an omitted variable may have an effect on both the independent and dependent variables, thus creating a cofounding factor with spurious consequences. The addition of several relevant state-level control variable (e.g. state population size, real state GDP per capita, the existence of state right-to-work laws, etc.) helps alleviate these concerns and the hypothesized moderating relationships in H2, H3, H4, and H5 decrease the likelihood that a third variable would vary systematically and simultaneously across treatments. Consistent with Hernandez (2014), I reestimated all models after removing cases of investments to the two states which by far attracted the most investments and had the highest nationwide Japanese firm concentration over the period (California and Illinois). It is anticipated that these two states are more attractive to new investments by Japanese firms. Results (not shown) are equivalent to those with the whole dataset, with all relationships displaying similar significance levels and differences in the same directions.

When considering both state entry and nationwide Japanese firm concentration, it is possible that the former also increases the latter, thus raising the issue of reverse-causality. When Japanese firms enter a given state, it subsequently raises the concentration of Japanese firms in the state. And firms may derive further scale and logistics-related agglomeration benefits by locating further investments in the same state where they already have operations or assets. To alleviate this possibility, I excluded additional entries into states where the parent company already had a subsidiary in the same industry (Chung and Alcácer, 2002; Hernandez, 2014). This ensures that firms entering a particular state are not influenced by their own prior investment.

Discussion

The goal of this study was to examine the effect of home-country firm concentration on location decision when Japanese firms expand into the US. The main contribution of this paper is to provide empirical evidence that Japanese firms are much more likely to locate their operations in states with a higher percentage of Japanese firms, seeking benefits related to the presence of same-country rather than same-industry firms. Given this sample, the odds are twice as high for Japanese firms to enter a state with a one-percent higher concentration of same-country firms. This is an especially important result as previous research had concluded that the concentration of home-country firms was not associated with US state location decision for a sample of subsidiaries from 27 countries, including Japan (Hernandez, 2014). Disaggregating the data shed light on a bandwagon effect for Japanese firms locating investments in the US and adds to comparable previous findings in other countries such as China (Belderbos, Olffen, and Zou, 2011).

Industry concentration and right-to-work laws were also found to increase the chances of state entry by Japanese firms, although less strongly than home-country firm concentration. These

effects may be due in part to the fact that a third of the sample consists of firms in the manufacturing industry, whose location decisions are often driven by efficiency-seeking and resource-seeking motives. The former is consistent with network-based production rationalization and the latter with non-union and thus cheaper labor (Dunning and Lundan, 2008).

One remarkable finding is that the draw of co-national firms is stronger than that of industry concentration, signaling that Japanese firms evaluate the former as more valuable than the latter. In the case of Japanese organizations, corporate ethnic ties trump industry connections, similarly to that of individual ethnic ties (Zaheer, Lamin, and Subramani, 2009). This is presumably because the shared ethnicity of company managers acts as a stronger basis of trust than do industry ties, as previously established by Hernandez (2014), albeit for a multi-country group of firms. Beyond lowering search costs and reducing the perceived uncertainty of investment in a far-away land (Gimeno, Hoskisson, Beal, and Wan, 2005), corporate ethnicity constitutes a deeper and more stable attribute, and this is further supported by the significant influence of institutions maintaining and reinforcing local Japanese communities. Indeed, the mere existence of official and supplementary Japanese schools increases the odds of state entry by a Japanese firm by 491% [1-exp(1.777), $p<0.001$] and 133% [1-exp(0.848)=133%, $p<0.05$], respectively, when the concentration of Japanese firms in the state is ignored (model 1).

Furthermore, industry concentration exerts a moderating effect on the relationship under study. The appeal of states with abundant home-country firms was found to decrease in relation to state-level industry concentration, suggesting that Japanese firms seek out states with same-country firms when their industry is not well developed or represented in those states. This indicates that the presence of same-country firms acts as a positive agglomeration signal in states where the industry is under-developed, and therefore competition weak; the social network of

established Japanese firms becomes a deciding factor in the absence of other attractive economic attributes. However, when industry concentration has increased so much as to have created a competition effect (Belderbos, Olffen, and Zou, 2011), Japanese companies avoid entering the state. The social network and related knowledge gained from same-country firm concentration can be a substitute for those obtained from industry concentration. When an industry is not yet well-developed in a given state, thus limiting industry-related agglomeration benefits, Japanese firms can derive positive knowledge spillovers from the presence of other home-country firms instead.

Generally, Japanese firms value the presence of home-country firms when making location decisions in the US, irrespective of other firm- or industry-specific location determinants, except for state-level industry concentration. Against expectations, prior experience in the target country, national industry growth, and knowledge intensity did not significantly moderate the effect of the presence of home-country firms on state entry. However, large differences, although not statistically significant in our sample of Japanese affiliates, were revealed between the low and high values of the moderators, and these differences were in the same directions as hypothesized.

Implications

The observed bandwagon effect suggests that Japanese firms are willing to contend with increased rivalry. In the relatively new theory of economic geography, Fujita, Krugman, and Venables (1999) illustrated how agglomeration effects both raise competition among co-located firms and create positive externalities such as market access and knowledge spillovers. The evidence here indicates that Japanese firms give precedence to such positive externalities available to any new entrants, and especially to the reduced uncertainty offered by the presence of Japanese firms.

Japanese businesses are willing to locate in states which attract more firms and therefore have a higher level of competition. This is best illustrated by the case of Toyota, which moved from California to Texas in 2014 and created a vacuum for Japanese companies to move their main American office or part of their operations to the state. This surge in same-country firms has been documented by the honorary consul-general of Japan in Dallas, John Stich, who noted that the growing flow of Japanese investment was in part due to what he called the "Japanese infrastructure" of Japanese language schools, Japanese food specialty stores, and of course the network of Japanese firms in the state (Hethcock, 2016).

This research on co-national bandwagon effects has important implications for policy-making since states continuously compete among each other to attract foreign operations. Beyond FDI incentives offered by most locations, as well as infrastructure, state officials now have the opportunity to influence inward investment from abroad by concentrating their efforts on attracting firms from given countries rather than particular industries. Japanese firms seek to establish their operations in states with a large concentration of same-country firms, which can also be a substitute for locations with lower industry concentration. Therefore, individual states can attract Japanese firms on condition they support the creation of same-country firm clusters regardless of industry maturity and therefore concentration, in order to jumpstart a snowball effect of country-specific foreign investment.

How should states "prime the pump", that is attract a large enough number of Japanese firms which will then act as a magnet for future Japanese investments in the state? From the data, classic FDI incentives of a fiscal or financial nature, as well as the presence of Japanese language schools, are attractive factors for Japanese firms making location decisions in the US. However, it remains unclear whether firms from other countries are equally influenced by co-national

bandwagon effects. Hernandez (2014) did not find such relationship, although he looked at aggregate effects rather than associations by country. In any case, states may consider different strategies based on country of origin when appealing to foreign investors.

Limitations

Although the hypothesized moderating effects of firm prior experience, national industry growth and knowledge-intensity were not supported by the data, the directions of the moderating effects effect on the relationship between same-country firm concentration and state entry were confirmed. Future research should use a larger sample size as sub-samples were limited in some instances. One possible data source is Toyo Keizai's Overseas Japanese companies database, one of the largest repository about Japanese firms' expansion overseas. Doing so would also complement the dataset from the Corporate affiliation database since it may not contain all instances of Japanese investments in the US.

Another issue is that related to the classification of firm into high- and low-tech categories. Hecker (2005) admits that although the US Bureau of Labor Statistics had discussed using factors such as the proportion of scientists, engineers, and technicians, the high proportion of R&D employment, the production of high-tech products, and the use of high-tech production methods, they only considered science, engineering, and technician occupation intensity because of data and conceptual problems. The Census Bureau recognizes that the not all employees of companies in these 28 selected industries are directly engaged in high-tech work, and that some employees of companies in industries outside this group of 28 are conversely involved in high-tech work (Census Bureau, 2019). Therefore, future analysis should look more closely at the primary activities of

investing firms in the US and determine their knowledge-intensity to classify them into high- or low-tech categories.

Tables

Table 1. New entries of Japanese firms and nationwide Japanese firm percentage by state

State	New entries 2003-2017		Nationwide Japanese firm %	State	New entries 2003-2017		Nationwide Japanese firm %
State	N	%	%	State	N	%	%
Alabama	2	1.4%	1.7%	Montana	0	0.0%	0.5%
Alaska	0	0.0%	0.3%	Nebraska	1	0.7%	0.7%
Arizona	3	2.1%	2.2%	Nevada	0	0.0%	1.4%
Arkansas	0	0.0%	1.0%	New Hampshire	0	0.0%	1.1%
California	47	32.9%	8.7%	New Jersey	7	4.9%	3.5%
Colorado	1	0.7%	2.0%	New Mexico	0	0.0%	0.9%
Connecticut	1	0.7%	1.7%	New York	8	5.6%	5.0%
Delaware	0	0.0%	0.7%	North Carolina	0	0.0%	2.6%
Florida	3	2.1%	3.1%	North Dakota	0	0.0%	0.3%
Georgia	4	2.8%	3.6%	Ohio	5	3.5%	3.9%
Hawaii	2	1.4%	1.3%	Oklahoma	2	1.4%	1.0%
Idaho	0	0.0%	0.8%	Oregon	1	0.7%	2.1%
Illinois	14	9.8%	5.1%	Pennsylvania	2	1.4%	2.5%
Indiana	4	4.1%	2.7%	Rhode Island	0	0.0%	0.8%
Iowa	0	0.0%	1.1%	South Carolina	2	1.4%	1.6%
Kansas	0	0.0%	1.2%	South Dakota	0	0.0%	0.3%
Kentucky	5	3.5%	2.3%	Tennessee	0	0.0%	2.6%
Louisiana	0	0.0%	1.1%	Texas	4	2.8%	5.0%
Maine	0	0.0%	0.7%	Utah	0	0.0%	1.3%
Maryland	0	0.0%	1.7%	Vermont	0	0.0%	0.5%
Massachusetts	7	4.9%	2.7%	Virginia	3	2.1%	2.1%
Michigan	10	7.0%	4.1%	Washington	1	0.7%	2.8%
Minnesota	0	0.0%	1.9%	West Virginia	1	0.7%	0.6%
Mississippi	1	0.7%	1.1%	Wisconsin	1	0.7%	1.5%
Missouri	1	0.7%	1.7%	Wyoming	0	0.0%	0.3%

Nationwide Japanese firm percentage by state is for 2010

Table 2. Descriptive statistics

	Mean	Std. Deviation	Minimum	Maximum
State Entry	0.02	0.140	0	1
Prior experience (Number of States)	1.42	2.393	0	13
State-level industry concentration	1.995%	2.161%	0.000%	16.304%
Technology (high)	0.43	0.496	0	1
Nationwide Japanese firm percentage by state	1.987%	1.577%	0.258%	8.743%
Japanese to all firms percentage by state	0.096%	0.034%	0.036%	0.229%
State population size	6162876	6779881	563626	37253956
Real state GDP per capita (USD)	46248	8704	31687	69565
State right to work laws	0.500	0.500	0	1
State unemployment rate	6.730%	1.519	2.900%	9.600%
Japanese official schools	0.060	0.238	0	1
Japanese supplementary schools	0.440	0.496	0	1
State energy prices (USD)	13.516	5.166	7.280	37.390
State spending per pupil (USD)	10780	2607	6064	18618
State FDI incentives (number)	37.180	14.586	11	76
National industry growth rate	-1.035%	2.553%	-5.906%	6.199%
Distance to Tokyo (naut. miles)	5382	650	3355	6133

N=7,150

Table 3. Correlations between variables under study

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	State Entry	1																
2	Prior experience (Number of States)	-.020	1															
3	State-level industry concentration	.275**	.221**	1														
4	Technology (high)	.000	.061**	-.001	1													
5	Nationwide Jpn firm percentage by state	.285**	.228**	.909**	.000	1												
6	Jpn to non-Jpn firm ratio by state	-.061**	-.061**	-.447**	.000	-.287**	1											
7	State population size	.272**	.219**	.957**	.000	.929**	-.460**	1										
8	Real state GDP per capita	.042**	.035**	.084**	.000	.101**	-.023*	.084**	1									
9	State right to work laws	-.053**	-.029*	-.034**	.000	-.111**	-.256**	-.036**	-.413**	1								
10	State unemployment rate	.125**	.106**	.382**	.000	.523**	.037**	.395**	-.106**	-.204**	1							
11	Japanese official schools	.052**	.044**	.074**	.000	.173**	.142**	.050**	.285**	-.253**	.206**	1						
12	Japanese supplementary schools	.129**	.118**	.577**	.000	.677**	-.139**	.577**	.086**	-.081**	.409**	.115**	1					
13	State energy prices	.004	-.009	-.123**	.000	-.058**	.598**	-.106**	.412**	-.512**	.037**	.168**	.122**	1				
14	State spending per pupil	.007	.026*	-.018	.000	.000	.047**	-.021	.683**	-.536**	.002	.275**	.032**	.435**	1			
15	State FDI incentives	-.017	-.013	.101**	.000	.022	-.399**	.090**	.059**	-.084**	-.029*	-.211**	.044**	-.219**	.159**	1		
16	National industry growth	.000	-.001	.000	-.089**	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1	
17	Distance to TYO	-.025*	.005	.156**	.000	.117**	-.265**	.141**	-.230**	.205**	.230**	.174**	.137**	-.330**	.103**	.354**	.000	1

N=7,150; *p<0.05; **p<0.01

Table 4. Fixed-effects logit analysis of location choice

	1	2	3	4	5	6	7	8	9	10
			Prior experience		State-level industry concentration		National industry growth		Technology	
	Controls	Main Effect	Low	High	Low	High	Low	High	Low	High
Threshold (state entry=0)	10.451** (2.118)	8.188** (2.354)	7.383 (4.180)	9.391* (3.032)	8.736** (2.448)	26.889 (758.993)	7.642* (2.960)	11.261* (4.423)	10.139* (3.330)	6.046 (3.593)
Nationwide Japanese firm percent. by state		111.329** (28.151)	131.275* (48.495)	99.687* (36.124)	113.315** (32.572)	-1295.225 (14658.033)	100.918* (33.823)	179.129* (60.503)	109.725* (38.288)	123.491* (44.586)
AME		204%	272% > 171%		211% > -100%		174% < 500%		200% < 244%	
AME t-test		N/A	t(7,148)=0.064, p=0.949		t(7,148)=66.791, p<0.001		t(7,148)=-0.203, p=0.839		t(7,148)=0.552, p=0.581	
Hypothesis tested		H1	H2		H3		H4		H5	
State-level industry concentration	33.481** (10.369)	31.257* (10.785)	42.114* (14.669)	19.596 (17.731)	40.979* (17.428)	18.295 (16.349)	33.713* (13.683)	23.540 (17.473)	50.600** (14.438)	7.962 (16.322)
Jpn to all firms ratio by state	1791.952* (654.870)	108.748 (848.336)	675.286 (1586.963)	-338.956 (1025.504)	330.349 (878.533)	5186.888 (759106.168)	-311.806 (1102.993)	366.453 (1492.813)	1352.660 (1188.071)	-1780.118 (1440.034)
State population size	3.681E-08 (3.749E-08)	-1.714E-07* (6.574E-08)	-1.925E-07 (1.116E-07)	-1.704E-07* (8.685E-08)	-1.890E-07* (9.475E-08)	3.004E-06 (4.199E-5)	-1.621E-07* (7.923E-08)	-2.731E-07* (1.326E-07)	-1.792E-07* (8.961E-08)	-1.784E-07 (1.036E-07)
Real state GDP per capita	-1.216E-05 (2.424E-05)	-3.855E-05 (2.831E-05)	-7.399E-05 (4.595E-05)	-1.044E-05 (3.857E-05)	-2.751E-05 (2.949E-05)	0.000 (0.018)	-6.563E-05 (3.532E-05)	5.758E-05 (5.762E-05)	-6.293E-05 (4.019E-05)	-1.260E-05 (4.241E-05)
State right to work laws	1.002* (0.421)	0.806* (0.384)	0.331 (0.580)	1.346* (0.585)	0.939* (0.416)	-12.590 (0.000)	0.538 (0.435)	1.876* (0.914)	0.969 (0.499)	0.628 (0.611)
State unemployment rate	0.384* (0.130)	0.041 (0.160)	-0.122 (0.281)	0.152 (0.219)	-0.023 (0.177)	0[a]	0.166 (0.199)	-0.242 (0.318)	-0.055 (0.223)	0.172 (0.253)
Japanese official schools	1.777** (0.525)	0.859 (0.585)	0.711 (1.009)	1.424 (0.794)	0.796 (0.627)	0[a]	0.692 (0.704)	0.945 (1.150)	0.719 (0.831)	1.072 (0.859)
Japanese supplementary schools	0.848* (0.325)	0.048 (0.395)	0.329 (0.692)	0.062 (0.507)	0.010 (0.452)	0[a]	-0.105 (0.478)	0.219 (0.803)	0.065 (0.545)	0.008 (0.587)
State energy prices	0.004 (0.035)	0.088* (0.041)	0.070 (0.068)	0.112* (0.054)	0.082 (0.043)	0[a]	0.080 (0.052)	0.104 (0.069)	0.076 (0.060)	0.106 (0.057)
State spending per pupil	8.524E-05 (6.419E-05)	4.312E-05 (6.230E-05)	0.000 (9.177E-05)	0.000 (0.000)	4.646E-05 (8.026E-05)	0[a]	7.963E-05 (7.823E-05)	-6.052E-05 (0.000)	0.000 (8.868E-05)	-3.878E-05 (9.184E-05)
State FDI incentives	0.047** (0.015)	0.035* (0.015)	0.037 (0.028)	0.041* (0.018)	0.033* (0.016)	0[a]	0.037 (0.018)	0.022 (0.030)	0.042 (0.022)	0.032 (0.022)
National industry growth	-0.002 (0.036)	0.002 (0.036)	0.004 (0.049)	0.002 (0.056)	0.004 (0.044)	0.014	-0.003 (0.053)	0.012 (0.154)	0.003 (0.047)	5.272E-05 (0.057)
Distance to TYO	-0.001 (0.000)	0.000 (0.000)	0.000 (0.001)	9.173E-05 (0.000)	-7.990E-05 (0.000)	0a	-8.662E-05 (0.000)	-9.703E-05 (0.001)	9.773E-05 (0.000)	0.000 (0.000)
Pseudo R^2	0.243	0.255	0.392	0.141	0.155	0.189	0.258	0.278	0.277	0.249
Log likelihood	758.123	740.170	397.598	414.784	574.232	161.948	479.181	248.872	457.391	367.095
Sample size	7,150	7,150	4,200	2,950	6,768	382	4,900	2,250	4,050	3,100
State entry 0	7,007	7,007	4,116	2,891	6,682	325	4,802	2,205	3,969	3,038
State entry 1	143	143	84	59	86	57	98	45	81	62

Standard errors are in parentheses; *p<0.05; **p<0.001; a. This parameter is set to zero because it is redundant.

Figures

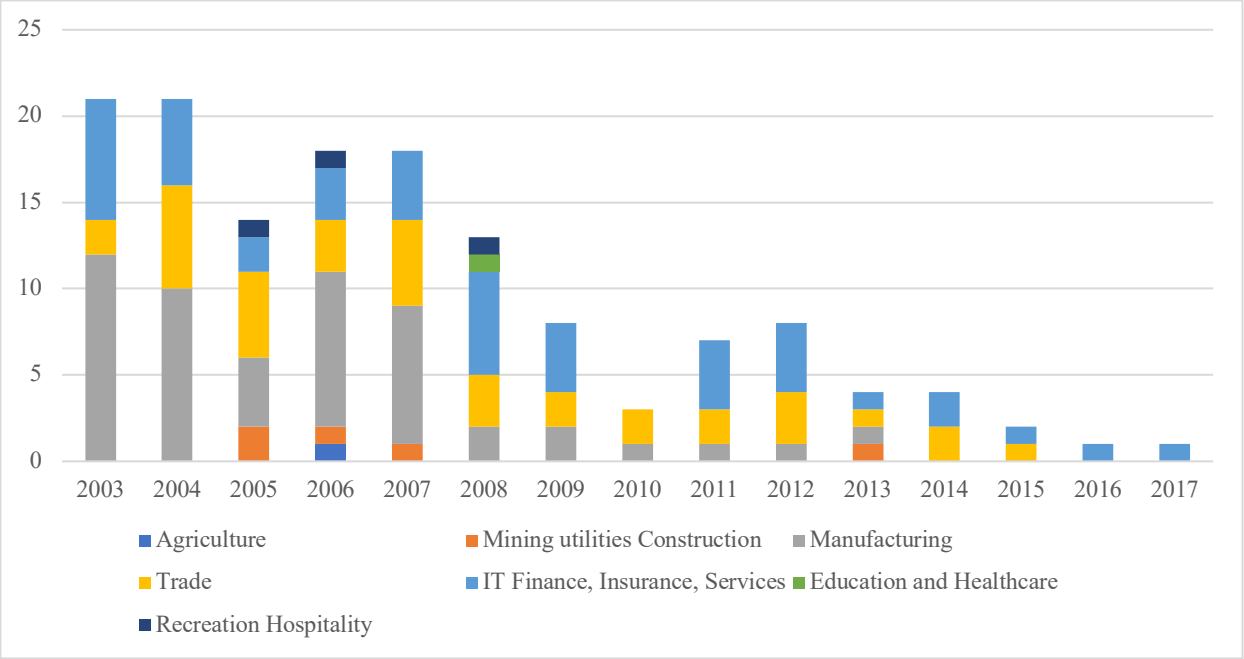

Figure 1. New entries of Japanese firms in the US by industry and year

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