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Competitive Interactions between Global  
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The Entry Behavior of Korean and Japanese  
Multinational Firms

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## **Competitive Interactions between Global Competitors: The Entry Behavior of Korean and Japanese Multinational Firms**

**Abstract:** We investigate the competitive influence on a multinational firm's geographic market entry decisions as conditioned on the actions of industry competitors from within its own country and on the actions of competitors from a nearby country. We frame our study in the competitive action literature in which we interpret the market entry decision in the context of the timing of the globalization of a firm. Using descriptive and multivariate analysis, we try to understand how late entrants are influenced by the actions of early entrants and how early entrants react to the competitive challenges posed by late entrants. We examine the entry behavior of Japanese and Korean firms across four distinct strategic time periods, and find that Korean firms tended not to follow the actions of Japanese competitors. Meanwhile, Korean and Japanese firms actively imitated the investment decisions of peer firms, competing in the same industry.

Consumers in markets in the 2000s recognize the increasingly concentrated and global nature of competition in many industries. Automobile purchases are dominated by considerations of whether to buy the products of Japanese manufacturers, such as Toyota, Honda and Nissan, or the products of Korean manufacturers such as Hyundai or Kia, among other competitors such as those from the U.S. and Europe. Electronic products likewise face concentrated global competition with Sony, Matsushita, Samsung, and LG being major world competitors. Similarly, in non-consumer products, such as steel, Nippon Steel Co. and POSCO are major world competitors that fiercely compete with each other. In these global industries, a firm's competitive moves are closely watched and often quickly matched by competitors. For instance, in 2002, NEC and Toshiba announced a joint development of the next generation DRAM to compete effectively with Korean rivals such as Samsung and Hynix. In 2004, Hyundai Motors started to build a manufacturing plant in Alabama, where Mercedes-Benz and Honda had already located manufacturing plants.

Although there is widespread recognition of the increasingly global nature of competition in these and many other industry segments, studies of the strategies of firms, particularly with respect to FDI decisions, have seldom involved consideration of the actions of other international players. Studies have tended to be confined to an examination of how the home and host country organizational environment influence FDI or international strategic decisions. Part of the reason for this undoubtedly rests in the data challenges required to construct such a study, yet data considerations aside, to develop a more complete understanding of the motivations and consequences of international competition, it is important to consider how a firm's international strategies are related to the actions of non-home and non-host country competitors.

We undertake such an examination using the experiences of two sets of close country rivals: Japanese and Korean firms. We frame this study in the competitive action and

reaction literature and ask the broad conceptual questions of what are the strategies of latecomer firms in globalization and how early entrants respond to the challenges of latecomer firms. We present considerable descriptive and analytical evidence to identify the patterns in global competition that are emerging between these two sets of national firms. We place foreign direct investment (FDI) as the particular strategic decision at the focus of our examination.

The case of Korean and Japanese firms is suitable to this investigation for four reasons. First, Korean and Japanese firms are geographically proximate to one another and each country has long been on the radar screen of the other. Second, the leading firms in these countries tend to occupy similar industries such as automotives, electronics and heavy industries. Third, Japanese firms have a clear lead in foreign entry as compared to Korean firms, permitting us to investigate issues related to early and late entry with respect to country sets of firms. Fourth, these firms are known to follow similar foreign entry strategies. The typical foreign expansion pattern is to first take a heavy export orientation, then follow this with FDI to support export-driven growth. This in turn, is eventually followed with FDI that places an increased focus on local consumer markets in the host country.

Our sample comprises entries of both Japanese and Korean firms. We look at entry and exit behavior in the 1980 to 2003 period. This period captures the rapid expansion of Japanese firms into international markets in the mid- to late-1980s and the rapid expansion of Korean firms into international markets in the early 1990s. We utilize descriptive and event history analyses for the entry decision of Japanese firms. In our framing of the study, we clarify the trade-offs involved in market entry when evaluating the risks of entering an economically attractive and relatively stable market occupied by a competitor, versus entry into an untapped but perhaps economically and politically risky market, or at least a market with a higher degree of uncertainty.

## **BACKGROUND LITERATURE**

Firms' competitive interactions have been well studied in the economics and management disciplines. When a few rival firms compete in an industry; such as in an oligopolistic industry, a firm's strategic moves will have a direct impact on the strategies and performance of other firms in the same industry. Firms in an oligopolistic industry consequently should pay attention to rivals' competitive moves and closely react to them to protect market positions, to maintain or augment their competitive advantages, and to improve or at least sustain their current levels of performance.

In the economics literature, the issues of competitive interactions have been studied in a game theoretic setting, from which have been derived many important strategic implications for competition that is dependent on the actions of rival firms. In the management literature, several researchers have examined competitive interactions across a variety of empirical settings. Chen and Miller (1992, 1994), using the setting of the U.S. airline industry, found that defending firms would consider payoffs in both cases of response and non-response according to factors such as the visibility of attackers' competitive actions, the defenders' dependence on the affected markets, and the irreversibility of their competitive reactions.

In the international business literature, bunching patterns in the outward foreign investment activities of firms in an oligopolistic setting have been well studied. Knickerbocker (1973) argued that firms in an oligopolistic industry tended to match rival firms' international expansion moves to avoid the possibility that rival firms' moves would provide those firms with more pronounced competitive advantages, if successful. As a consequence of this matching behavior in international expansion, firms' international expansion moves have tended to show a bunching pattern. Several other studies have

identified the clustering of international expansion moves, and have attributed this clustering to an oligopolistic competitive reaction in many instances (Flowers, 1976; Yu and Ito, 1988).

There are, however, two possibilities in which the apparent competitive interactions might not necessarily have emerged from a condition of intense rivalry, as theorized in the preceding paragraphs. First, it is possible that firms in the same industry may show a bunching pattern not from close rivalry, but from responding to the common economic rationales such as the development of positive network externalities. Positive network externalities can arise when the investment activities of firms lead to improvements in the accessibility to specialized factors and workers, better information about the market, technology trends, infrastructure and the creation of public goods. Positive externalities also promote complementarities among firms and promote cooperation among firms (Marshall, 1920; Porter, 1998). From this perspective, the observed bunching pattern of foreign direct investment is only spurious since it is not an outcome of intense rivalry per se but only reflects certain conditions of a host country that help to create network externalities.

There have been many studies that have explored agglomeration patterns in a few locations. Henderson (1986) empirically demonstrated that the agglomeration of firms in the same location increases factor productivity. Saxenian (1994) documented how microelectronics firms clustered in Silicon Valley exhibited agglomeration behavior. Krugman (1991) developed a formal model in which agglomeration results from manufacturing firms' desire to locate in a place of large demand to exploit scale economies and minimize transportation costs, while the location of demand depends on the location of manufacturers. Smith and Florida (1994) and Head et al. (1995) observed that Japanese firms co-located with other Japanese firms. They pointed to technological spillovers, specialized labor, and other inputs as the main reasons for agglomeration. Chung and Song (2004) found that Japanese electronics firms in the U.S. tended to co-locate with other Japanese firms when

they had less prior experience. At the country level, Song (2002) showed how Japanese firms' prior investments in technological and sourcing capabilities led to subsequent investments in the same countries. Chung and Alcacer (2002) also found that firms in research-intensive industries were more likely to locate in regions with high R&D intensities.

Second, although economists generally attribute close competitive interactions to real economic gains, organizational theorists have argued that close competitive interaction might occur for non-economic reasons. Competitive reaction might occur, for instance, when firms wish to improve their legitimacy in order to access resources they need for survival and growth (DiMaggio and Powell, 1983; Suchman, 1995). A firm might choose to enter a market simply because so many other firms had already located there, thus legitimizing the entry decision. This mimetic behavior has been observed in various contexts: the adoptions of the M-form organization structure (Fligstein, 1985) and the poison pill (Davis, 1991), and acquisition decisions (Haunschild, 1993). Further, the risk and uncertainty of venturing into a foreign country could increase a firm's propensity to imitate the decisions of other firms (Levitt and March, 1988).

Empirical work has indicated that legitimacy and uncertainty influence MNCs' expansions into foreign countries. Guillen (2002) found that emerging market multinationals that were in the early stages of internationalization imitated other firms. Henisz and Delios (2001) demonstrated that Japanese firms that lacked international experience relied more heavily on the past international expansion decisions of other firms in their reference group as cues for their own entry decisions.

Even though these studies have helped us understand agglomerative incentives and mimetic pressures on imitation in entry decisions, we believe these prior studies are limited in three important ways, particularly with relevance to concerns about strategic interactions. First, prior research has exclusively focused on examining strategic interactions or

agglomeration patterns of the firms from the same country. By doing so, these studies assumed that firms consider only competitors from the same country in their investment decisions. It has not been well documented whether strategic interactions might be less severe or more severe among firms with different nationalities than among firm with the same nationality.

Second, prior studies have often focused on the benefits of competitive interactions or agglomerations but did not pay enough attention to the cost side. Close strategic interactions can be costly since they naturally lead to intensified competition in both product and factor markets. Baum and Mezias (1992) demonstrated that hotels located in Manhattan that were similar in terms of location, price and size, posed greater threats to each other and reduced each other's chances of survival as the area became more crowded. Agglomeration in the same location also drives up the costs of locally-sourced inputs, such as wages of local managers and engineers and housing expenses for expatriates. In addition, firms can benefit from the spillover of other firms' knowledge and technologies, but their own knowledge and technologies can spill over to other firms. Appold (1995) found that agglomeration was negatively associated with performance in the U.S. metal working sector. Shaver and Flyer (2000) argue that the benefits and costs firms derived from collocation could differ according to a firm's own comparative level of core competencies. Shaver and Flyer (2000) contend that firms with relatively more resources avoid agglomeration because for them, the potential costs of spillovers are greater than the potential benefits.

Third, most prior research was static in nature and failed to observe how the pattern of strategic interactions may change over time. For instance, it might make sense for latecomers in internationalization to imitate early entrants' moves in deciding which markets to enter. It, however, may not make much sense to continue doing so after they have accumulated their own international experience. Similarly, the degree of positive or negative network

externalities, and the forces of institutional isomorphism can shift as industries and the firms that participate in those industries evolve.

In this study, we address these three important limitations to advance our understanding of strategic interactions in several ways. First, we explore the competitive interactions among firms from two nearby and similar, yet qualitatively different nations; namely, Japan and Korea. By doing so, we explore the possibility that the strategic interactions among firms may be stronger among firms from the same country or between firms from different countries. Second, we explicitly consider both the benefits and costs of strategic interactions. By clarifying what benefits and costs firms may encounter in initiating and responding strategic moves to competitors, we can understand better the real motivations behind the strategic interactions. Third, we examine the dynamic patterns of strategic interactions. With longitudinal data, we can explore how the pattern of strategic interactions would change as competing firms gain international experience. In so doing, we need to empirically separate whether the apparent competitive rivalry among Korean and Japanese firms is driven by an intense rivalry between themselves or by responses to network externalities, in which case the observed pattern is spurious, or by interorganizational mimicry. Gimeno, Hoskisson, Brent and Wan (2005) compared and contrasted these three alternative explanations for interorganizational mimicry by examining the international expansion pattern of US telecommunication firms. They found evidence that interorganizational mimicry is more likely when the firms in question hold large market shares and when they compete in oligopolistic markets instead of monopolistic markets.

## **THEORY**

Firms that expand overseas relatively late compared to other firms in the same industry have to balance two types of risks. Those firms can tap experience or knowledge of early entrants by co-locating with them. By doing so, they can tap established supply

networks constructed by early entrants and hire local managers who have been trained by early entrants. They, however, have to overcome entry barriers set by early entrants. Established brand recognition in local markets and well established local supply networks of early entrants can generate competitive advantages over late entrants that just entered a foreign market. Late entrants thus have to fight an uphill battle to surmount the competitive advantages developed and reinforced by early entrants.

An alternative investment strategy of late entrants is to avoid markets populated by early entrants. By locating in a country with no or a small number of early entrants, latecomers in internationalization can avoid direct competition with early entrants. They, however, have to face the risks that come from entering an unknown market. Assuming that most firms in an industry are risk averse, those untapped markets might tend to be riskier to enter and operate in. For instance, if early entrants have already entered major industrialized countries, latecomers may wish to enter emerging markets with higher political risks.

Thus, when making their foreign entry decision, firms that are late in internationalization have to balance these two types of risks – the competitive challenges posed by early entrants and risks of entering uncertain but untapped markets. We argue that the choice between these two types of risks is contingent upon the relative competitive advantages of firms considering international expansion. We believe that firms that own strong competitive advantages might not be afraid of entering a market that is populated by early entrants. They might be able to overcome entry barriers with their own strong technologies and brands. However, firms that do not possess such strong competitive advantages might prefer not to confront early entrants in markets heavily populated by early entrants. Thus they might prefer entering a riskier but untapped country.

Aside from this consideration, the risk of possible competitive reactions by early entrants upon entry of late entrants would be contingent upon the success level of early

entrants. In a market where early entrants have been successful, the competitive challenges encountered by late entrants could be much more severe. We would expect a tougher response from early entrants in a host country where early entrants have been successful in establishing strong competitive advantages such as a superior technological base or well-recognized brands. We, however, expect that in markets where early entrants were not so successful, the risks of competitive reactions from early entrants will be less. We thus expect that latecomers in internationalization would be more likely to avoid the markets where early entrants were relatively more successful.

The risk of competitive responses from early entrants may also be contingent upon their own resources in their respective markets. Some early entrants might have established a strong supply network while others might have focused on distribution related activities. Late entrants will encounter variable levels of competitive responses from early entrants, depending on their strategic goals in the respective host country market. It is possible that late entrants may want to avoid direct competition with early entrants in sales and marketing in a host country market, for example. A late entrant can focus on setting up manufacturing operations in a host country and export goods to adjacent markets. By doing so, a late entrant can tap only the manufacturing or engineering based competences of early entrants, without necessarily challenging early entrants market positions in that host country. We thus expect that manufacturing investments may face fewer challenges from early entrants than sales and marketing related investments.

Early entrants, on the other hand, have to consider how they would react to the challenges by late entrants. Early entrants have three options for reaction. First, early entrants may decide to reinforce their dominant positions in the local markets by building capacity or investing further in distribution. Second, early entrants may exit the host country, either because they could not successfully defend their position in the market or because the

local market itself became less profitable due to intensified competition. Third, early entrants may decide to invest in other untapped markets rather than continue investing in the markets that were affected by late entrants.

These ideas highlight the entry dynamics that we might expect to observe given our focus on identifying heterogeneous characteristics between early and late entrants, and examining the consequent investment behaviors. Before making such a detailed analysis, it is important to identify clearly the comparative trends in FDI behaviors as well as the baseline influences in entry, posed by the prior entry behavior of industry rivals and other firms from both the home country of the potential investing firm, and other countries (or another country). We make such a set of analyses in the two sections that follow.

## **DESCRIPTIVE ANALYSIS**

### **Sample**

We use longitudinal data on the international expansion of Korean and Japanese firms to explore the patterns and influences on the timing and location of the international investment activity of these firms. Japan, and more recently Korea, have been leading sources of outward FDI, which has flowed to an extensive number of countries across several world regions. For example, according to the data we compiled for this study, if we include investments made in all sectors by all firms, by 2003, more than 120 countries had received at least one Japanese FDI, with 54 countries each possessing at least 30 Japanese foreign subsidiaries. This country spread provides the variance on cross-national levels of investment necessary to explore the various influences on the investment activities of both Korean and Japanese firms.

For the quantitative and descriptive analyses, we derived our final sample of Japanese entries from the lists of multinational firms and foreign subsidiaries provided in numerous annual editions of Toyo Keizai's compendium of Japanese foreign direct investment, *Kaigai*

*Shinshutsu Kigyō Souran (Japanese Overseas Investments)*. We used several annual editions of this data source (1986, 1989, 1992, 1994, 1997, 1999, 2001 and 2003) to construct longitudinal profiles of Japanese foreign direct investment for the 1980 to 2003 period. These profiles included information on the country and year of entry and the year of subsidiary exit, if an exit occurred. This process identified nearly 33,000 Japanese subsidiaries that existed in the 1980-2003 period. We dropped observations (subsidiaries) which were smaller than an investment size of US\$ 1 million and ones that were not engaged in productive activities in the manufacturing sector.

When Korean firms invest overseas, they are required by law to report their investments to the government-owned Import-Export Bank of Korea, which maintains a database on the names of investors, dates, amounts, and locations of investing firms' activities. For our sample, we used this source to select Korean firms' investments whose declared investment amount exceeded \$1 million. As with the Japanese sample, we restricted our analysis to investments made in the manufacturing sector. In developing the sample, we removed cases from our sample where the identities of investors were either individuals, rather than firms, or could not be confirmed due to bankruptcies or closures. We also deleted cases where the intended investment amount was reported but did not materialize into an actual investment by December 2003.

We provide more detail on the geographical distribution and timing of investments of the firms in our sample in the section that follows. We then move to a description of the variables and the type of analysis we undertake in the modeling portion of this report.

### **Sample Description**

Japanese and Korean firms have been active in foreign direct investment from the 1980s. The strongest period of growth in the manufacturing investment of Japanese firms was in the 1980-1997 period, as shown in Figure 1. Japanese outward flows of FDI grew

year-on-year from 1980 to 1990, with a slight downturn in the early 1990s, before resuming growth again in 1993. Since 1997, however, Japanese manufacturing FDI has slowed to the point where FDI levels in 2003 approximated those in 1986.

Meanwhile, the manufacturing FDI activity of Korean firms has shown strong growth in the 1988 to 1996 period, with a sharp drop in 1997, when the nation fell prey to the Asian Economic Crisis, but then a quick resumption to growth. 2003 was the year in which the highest levels of manufacturing FDI of Korean firms was achieved. Whereas Japanese firms FDI activity in 2003 was at the same level as in 1986, Korean firms FDI activity had increased steadily such that in 2003 it was close to ten times greater than the levels observed in 1986.

**Country Patterns.** Tables 1 and 2 outline the destination and timing of Japanese and Korean firm's investments by the 25 most prominent recipient (host) countries for the FDI of these two nation's firms. China and the USA appear as the two most popular sites for FDI for the firms from both countries. China is the leading host country for Korean firms and second for Japanese firms, whereas the USA is the leading destination for Japanese investment, but the second most popular site for investment for Korean firms.

In most of the countries outlined in Table 1, Japanese firms were active with their investments in the early 1980s, with the majority of the countries having received an investment in 1980. The mean date of FDI by country is centered around 1990. These dates tell a different story than what can be found in the FDI experiences of Korean firms. For the top 25 FDI destinations of Korean firms, only the USA and Germany received investments in 1980. All other countries received an investment at a later date than the 1980s, often in the 1990s, with the mean date by host country for Korean firms' FDI being close to 1994 and 1995 in most instances.

These numbers support the point that Korean firms are relative latecomers in major FDI countries, as compared to Japanese firms. Further, the volume of investment on a country-by-country basis has been considerably less in the case of Korean firms, than for Japanese firms. Finally, after the similarity of China and the USA as the leading destinations of investments for both Japanese and Korean firms, the ordering of countries as host sites for FDI is considerably different. For example, India is the 7<sup>th</sup> most popular destination for Korean FDI, but the 17<sup>th</sup> for Japanese FDI. Russia, Turkey and Myanmar appear in the top 25 list for Korean firms, but not for Japanese firms.

**Regional Patterns.** The regional patterns depicted in Tables 3 and 4 reflect the country patterns in the sense that Asia and North America are the two highest ranked host regions for the FDI of both countries. Asia received 50% of Japanese firm's FDIs and 64% of Korean firms' FDIs. Even though North America was the second most frequented destination for Korean firms' FDIs, it received just 18% of this FDI, compared to 22% for Japanese firms. Further to this trend, Western Europe, which was the third ranked destination, secured 21% of Japanese firms' FDIs but just 7% of Korean firms' FDIs. Accordingly, with these trends it follows that for all other regions of the world (South America, Eastern Europe, Australasia, Africa and the Middle East) Korean firms were more active on a percentage of FDI basis, than Japanese firms. The overall trend is that Japanese firms have a greater focus on making manufacturing FDIs in the developed economies of Western Europe and North America; whereas, Korean firms are more active in developing and emerging economies in Asia, South America, Eastern Europe and elsewhere in the world.

In terms of the timing of entry into each of the various world regions, we can observe this in Figures 2 through 9. In Asia, the temporal pattern of Japanese and Korean firms FDI mirrors that of their FDI worldwide (Figure 1), which is not surprising given that Asia-destined FDIs account for at least half of all FDIs of these firms. The most notable point is

that Japanese firms FDI have not come close to recovering to their 1997 peak, with several consecutive years of modest FDI following the strong growth that occurred up until 1997. Meanwhile, after a two to three year dip in FDI activity around the time of the Asia Economic Crisis in 1997, Korean firms manufacturing activity has shown a sharp upswing in the first few years of the 2000s.

In North America (Figure 3), Japanese firms' FDI showed a strong growth through the 1980s, perhaps bolstered by the strength of the yen against the dollar as bolstered by the Plaza Accord. The growth in the 1980s peaked in 1988, with a slow year-on-year decline to 1994, after which manufacturing FDI levels varied slightly by year, but in no consistent decline or acceleration. Korean firms FDI showed a modest growth in North America through to 1996, with a decline in 1997, then a sharp acceleration in the early 2000s. North America has thus become a more prominent part of Korean firms' FDI, but Japanese firms' FDI show a considerable fall-off in the 2000s as compared to the late 1980s peak in FDI activity.

The temporal patterns of Korean and Japanese firms' FDI in Western Europe (Figure 4) showed a tight similarity to those in Figure 3 for North America. Japanese firms had a strong growth in Europe peaking in 1990, just before the implementation of the European Union. Meanwhile, Korean firms showed growth in FDI activity in a modest fashion until 1996, after which there was a decline, with small signs of a recovery in the 2002-2003 period.

In Eastern Europe (Figure 5), Korean firms showed a sharp and dramatic interest in FDI in the mid-1990s. Perhaps with the caution brought on by the Asian Economic Crisis, Korean firms had a very substantial slowdown in FDI activity in Eastern Europe in the late-1990s and early 2000s. Interestingly, Japanese firms have shown a slight tendency to growth in interest in investing in Eastern Europe. This growth peaked in 1997, but the post-1997

fall-off in investment activity by Japanese firms in Eastern Europe has been comparatively small.

FDI activity in South America (Figure 6) is somewhat similar to the case of Eastern Europe with the exception that Korean firms have not shown a consistent drop in FDI activity in the post-1997 period. Reflecting the relatively sparse levels of FDI flowing into South American nations, there is quite a year-on-year variance in inward FDI levels into South America, by both Japanese and Korean firms. The general trend is a slight upward gain in FDI, through the 1980s and 1990s, but this trend has considerable annual variance, and only a small, discernable upward slope.

FDI activity in Africa (Figure 7) and the Middle East (Figure 8) is much more variable than that in South America. Absolute levels of FDI are quite rarely exceeding 2 or 3 FDI's in a given year, by firms from Korean or Japan. With the low levels in FDI there is no apparent upward or downward trend. Instead there is only sporadic and intermittent interest in FDI in these countries, with Korean and Japanese FDI's being made at similar absolute levels even though the baseline of Japanese FDI activity across the world is three to four times greater than that of Korean firms.

The region of Australasia (Figure 9) is the final world region to be discussed in this section. Japanese FDI was the most intense in Australasia in the mid- to late-1980s, after which there has been a small but perceptible decline in FDI levels. Korean firms have demonstrated a minor interest in establishing manufacturing FDI's in Australasia with most of that interest being manifest in the 1990s.

**Firm-level activity.** The major investing firms for manufacturing FDI's for Japan and Korea are depicted respectively in Tables 5 and 6. These two tables identify the major firms, along with their main industry, the number of foreign entries these firms had made in the 1980 to 2003 period and the host country that is the most popular site for a firm's FDI.

It is clear when looking at the right-most column in these tables, which shows the main industry of the foreign-investing firms, that firms involved in the electronics sector and firms involved in the automotive sector are among the manufacturing FDI leaders. Matsushita Electric Industrial formed 82 FDIs in the 1980 to 2003 period to lead all Japanese firms. Honda Motor and Toyota Motor were numbers 2 and 4, respectively, and numbers 1 and 2 among all automotive firms. NEC had the third greatest number of FDIs among all Japanese firms and second among electronics firms, with Toshiba and Mitsubishi Electric being the third and fourth most active among other electronic firms in Japanese. Each of the top seven foreign investing firms in Japan had the USA as the country in which they had made the most foreign investments.

Among Korean firms, those firms involved in the electronics industry were the first (LG Electronics), second (Samsung Electronics) and fourth (Daewoo Electronics) most active foreign investing firms. Daewoo Motor, which was the third most active on the FDI front, was the leading automotives firm for FDIs from Korea. The most popular FDI destination for LG Electronics and Samsung Electronics was China. The levels of FDI for LG Electronics and Samsung Electronics would place them among the top ten foreign investing firms, when compared to Japanese firms, but the remaining 23 firms (number 3 to 25) in the top 25 foreign investing firms from Korea, each had FDI levels lower than the 25<sup>th</sup> most active foreign investor from Japan (Ajinomoto). In this sense, the majority of Korean firms, even those with high levels of FDI, substantially lag behind the foreign investment activities of Japanese firms.

**Synopsis of Sample Description.** This descriptive analysis on a country, region and firm-level basis reveals the comparatively higher focus on foreign markets, at least for FDI, for Japanese firms as compared to Korean firms. Worldwide, and in most regional markets, Japanese firms have been active earlier and on a more intense basis than Korean firms. In the

2000s, however, Japanese FDI activity has fallen-off, while Korean FDI activity has been maintained. The strongest focus for Korean firms is on Asia, with a somewhat greater focus on Eastern European and South American markets than Japanese firms. Japanese firms have a clear preference for the developed economics of Western Europe and North America, as compared to Korean firms. Finally, and as expected, firms from the electronics and automotives sectors are the most active foreign investors in both the Korean and Japanese cases. Chemicals & drugs, iron & steel and machinery are other industries in which firms from Japan and Korea are active in FDI activity.

### **EMPIRICAL ANALYSIS**

Our empirical analyses build from concepts developed in the theory section and the trends identified in the descriptive analysis to look at influences on the entry timing behaviour of Japanese and Korean firms in host country markets worldwide. These analyses are intended to empirically identify how firms from the same industry and other industries, and the same country and other country, have influences the investment timing and patterns of the focal firms in our sample.

It is important to note that the unit of analysis in this section of the report is the firm-country pair. For each firm in our sample we have established a record that identifies a host country and a year. We accordingly code our time-varying independent variables for the year of the analysis, and indicate whether an entry (FDI) was made by the firm into that country in that year.

We begin this section with a description and development of the measures for the variables in the analyses. Next we move to a discussion of the model we implement. We follow that with a discussion of the results of our analyses.

## Measures

**Entry.** Dependent variables in previous research on competition and entry timing have been an entry or response variable, and a relative response timing measure that compares a firm's time for a response to an action of one firm, with the response time of other firms (Chen & Hambrick, 1995). We developed an entry decision variable that enabled us to test the rate of response (entry rate) for a firm. To mark the decision by firm  $i$  to establish a manufacturing entry in country  $x$  in period  $t$ , we created the indicator variable  $E_{ixt}$ . This variable takes a value of 1 if firm  $i$  locates a manufacturing plant in country  $x$  at time  $t$ , and 0 otherwise. We started annual observations for all firms in 1980, and continued our observations for each firm-country pair until 2003.

**Firm entry variables.** We developed several time varying measures from the entry histories of other firms to evaluate the influences of other firms' past investment decisions on a focal firm's investment decision. The first measure we created is a measure of the number of investments a firm has in the focal country. This measure, *Focal firm entries in host country*, is a count of the number of surviving entries a firm had made into a country at the end of the calendar year preceding a year of observation (the count was lagged by one year). The second measure, *Focal firm entries in nearby countries*, is a count of the number of surviving entries a firm had made into countries that are situated geographically proximate to the focal host country, as lagged by one year. In this case, a nearby host country is one that shares a border with the host country, or is a country that is separated from the host country by a small (non-ocean or sea) body of water.

To account for the influence of competitors' entries, we established two count variables. The first of these, *Japanese rival entries*, was an annual count of the number of previous entries, less exits, made by all rival Japanese firms in a host country, where a rival is defined as a firm competing in the same industry as the focal firm. The second of these,

*Korean rival entries*, was an annual count of the number of previous entries, less exits, made by all rival Korean firms in a host country, where a rival is defined as a firm competing in the same industry as the focal firm.

To account for the influence of all other firms (non-rivals) on the investment decision of a focal firm, we similarly used two measures. The first, *Japanese non-rival firms' entries*, was an annual count of the number of previous entries, less exits, made by all other Japanese firms (non-industry rivals as compared to the focal firm) in the same host country. The second, *Korean non-rival firms' entries*, was an annual count of the number of previous entries, less exits, made by all other Korean firms (non-industry rivals as compared to the focal firm) in the same host country.

The difference between the mutually exclusive categories of Korean rival entries and Korean non-rival firms' entries is that Korean rival entries is the stock of entries in a given year that exists in a host country, as established by a focal firm's industry rivals. Korean non-rival firms' entries are those entries established by all other firms in the industry. The sum of Korean rival entries and Korean non-rival firms' entries is equal to the total observed stock of Korean FDI in a host country in a given year. The same differentiation applies to Japanese rival entries and Japanese non-rival firms' entries.

**Firm Characteristics.** Using the Nikkei NEEDS database for Japanese firms, we developed time-varying measures for the technological and marketing focus of a firm, for its export experience and for its size and performance. *Technological intensity* and *advertising intensity* measured a firm's technological and marketing focus, using the standard proxies of R&D and advertising intensity. We computed these measures as the ratio of a firm's R&D (advertising) expenditures to its sales. *Export intensity* measured a firm's focus on sales outside of the home country, using the standard proxy of export revenue over total sales

revenue. *Firm size* was the logarithm of firm employment. *Firm performance* was the return on sales of a firm, defined as its profits before taxes over sales revenues in a given year.

In all cases, we computed these firm-level measures, as well as the host-country level measures defined below and the firm-entry variables defined above, on an annual basis, thus permitting us to have time-varying covariates in our analysis. We lagged these variables by one year when entering them into our analysis.

**Host Country Characteristics.** We use two control variables to measure a country's relative attractiveness for foreign investment (ratio of annual flows of FDI to annual GDP, *FDI/GDP*) and for foreign trade (ratio of annual value of exports and imports to annual GDP, *Trade/GDP*). Two measures capture market potential: *GDP growth* and *population growth*. We included a measure of the uncertainty of the host country environment, *political hazards*. This measure is the political hazards index, as derived from the work of Henisz (2000). We expect FDI levels to be greater in countries with greater levels of market attractiveness, and lower in countries with higher levels of political hazards.

In all models, we included fixed effects for the industry in which an investment was made, hence allowing the intercept to vary across different industries. We did not report the fixed effects in the tables that report the empirical analyses.

All correlations and descriptive statistics for all variables in our analysis are reported for the Korean and Japanese samples in Tables 7 and 8, respectively. We note that the correlation levels are low to moderate in value in both samples assuaging concerns about the deleterious effects multicollinearity could have on coefficient estimates.

### **Modelling Procedure**

We estimated entry rates using an exponential event history model in which no age parametric dependence is specified in its functional form. This technique models the

transition rate from an origin state (no entry) to a destination state (an entry) as a function of the prescribed covariates. Its general form is:

$$r_{jk} = \exp(\alpha_{jk0} + A_{jk1}\alpha_{jk1} + A_{jk2}\alpha_{jk2}\dots),$$

where  $r_{jk}$  is the transition rate from the origin state  $j$  to the destination state  $k$  (an entry into a country), with the observed covariate vector  $A_{jk}$ , parameters to be estimated  $\alpha_{jk}$ , and constant  $\alpha_{jk0}$ . In our modelling, the covariate vector,  $A_{jk1\dots N}$ , comprises the variables we have for the interorganizational and home industry environments, firm characteristics and control variables. The constant,  $\alpha_{jk0}$ , varies by year as we employ fixed effects for the year of an observation. The relationship between the covariates and the transition rate is specified as log-linear to ensure transition rate estimates are not negative, and estimation uses the maximum likelihood method.

To estimate this model, we took the sample of all firm-country pairs and split it by annual observations to include all possible years  $t$  in which firm  $i$  could make an entry into country  $x$ . We continued all observations until the end of 2003, at which point our models were right-censored. We note at this juncture that our results were robust to other hazard model specifications, such as a Cox semi-parametric model, and a discrete time hazard specification.

## **Results**

In the models reporting the results of our empirical analyses, we identify four time periods. The first time period is 1980-1986, which represents a strong period of expansion for Japanese firms. The 1987-1991 period captures the last years of the Japanese bubble economy. The 1992 to 1996 period is a period of strong economic growth in the economies of East and South East Asia. The 1997 to 2003 period is one that has as its first year the Asian Economic Crisis, and then follows with the years of recovery following the crisis.

We report the results by period for each of the samples of Korean and Japanese firms. The results for Korean firms' entries are reported in Table 9, and those for Japanese firms' entries can be found in Table 10. In our discussion of the results in these two tables, we refer first to the results for the firm entry variables, before turning to the results for the other variables.

In the four models depicted in Table 9, we find that each model is a substantive and significant predictor of the entry patterns of Korean firms. This is marked by the significant chi-square estimate for each model. As the models are not nested within one another, we cannot compare fit across the models using the chi-square statistic.

The results for the firm entry variables show both imitation and avoidance. The two variables measuring Korean rival entries and Korean non-rival firms' entries, both take positive and significant coefficient estimates in all time periods, with the exception of the first time period in which the coefficient estimate on the Korean firms' entries variable is not significant. This pattern of coefficient estimates provides strong support for an expansion pattern in which Korean firms' tended to imitate the decision of both rivals and non-rival Korean firms.

The results for the effect of Japanese firm entries on Korean firms are somewhat different. Japanese non-rival firms' entries, outside the industry of a focal Korean firm, did not exert an influence in the two earlier time periods, but did have a positive and significant association with Korean firm's entries in the latter two time periods. Meanwhile, in all time periods, the Japanese rival entries variable took a negative and significant coefficient estimate, highlighting the point that Korean firms were investing where Japanese rivals did not have a strong presence.

In most time periods, the prior entry activities of a Korean firm in a host country reinforced its entry behaviour in that host country. The results show that the more entries a

firm made in a country, the more likely it will make a subsequent investment. If investment activity was strong in neighbouring countries, then investment activity in the focal country was lower, as marked by the negative and significant coefficient estimate on the focal firm entries in nearby countries variables, especially after the second period.

Turning to the other variables, most took non-significant coefficient estimates. Firm size had a positive and significant coefficient estimate in the 1992-1996 period sample, and population growth was negative and significant in the 1992-1996 and 1997-2003 samples. Meanwhile, political hazards took a positive and significant coefficient estimate in all but the first period, marking the point that Korean firms were investing in countries that had a high level of policy uncertainty.

The results for the Japanese sample can be found in Table 10. In the four models depicted in Table 10, we find that each model is a substantive and significant predictor of the entry patterns of Japanese firms. This is marked by the significant chi-square estimate for each model. As with the Korean sample, the models are not nested within one another, and we cannot compare fit across the models using the chi-square statistic.

As with the Korean sample, the results for the firm entry variables show both imitation and avoidance, but not with the same clear pattern as in the Korean sample. The variable measuring Japanese non-rival firms' entries, has a positive and significant coefficient estimate in all time periods, suggesting that Japanese firms had a tendency to follow other non-rival Japanese firms in foreign entry decisions. In somewhat of a contrast the variable measuring Japanese rival entries has a negative coefficient estimate in the first two time periods, indicating a dispersal of Japanese firms' investments during the rapid expansion period of the 1980s. The same variable is positive in the most recent period. The results indicate that Japanese firms avoided direct competition with their rival Japanese firms in early periods. They, however, had to confront them in more recent time periods.

The results for the Korean firm entries on Japanese firms are somewhat different, and do not show the avoidance strategy implemented by the Korean firms in our sample. Korean non-rival firms' entries, outside the industry of a focal Japanese firm, exerted a negative influence in the two earlier time periods, but did have a positive and significant association with Japanese firm's entries in the latter two time periods. This result is directly opposite to that observed for the influence of Japanese firms entries on a focal Korean firm's entry (Table 9). Meanwhile, the Korean rival entries variable took a negative and significant coefficient estimate in the first time period and a positive and significant coefficient estimate in the 1992-1996 time period. This result does not show that Japanese firms were investing where Korean rivals did not have a strong presence, with any kind of consistency.

In all time periods, the prior entry activities of a Japanese firm in a host country reinforced its entry behaviour in that host country. If investment activity was strong in neighbouring countries, investment activity in the focal country was higher, as marked by the positive and significant coefficient estimate on a focal firm's entries in nearby countries variables. In this sense, Japanese entry behaviour had a strong regional consistency, unlike Korean entry behaviour which had a strong focus on a particular host country within a region.

Turning to the other variables, firm size had a positive and significant coefficient estimate in three of the four time periods showing that Japanese firms that had a large size were the most active in international investments. Similarly, exporting took a positive coefficient estimate that was significant highlighting the point that export active firms were also the most active foreign investing firms. As with Korean firms, Japanese firms tended to invest in countries with slower population growth, but political hazards took a negative and significant coefficient estimate in the first two time periods, marking the point that Japanese firms were investing in countries that had a low level of policy uncertainty, which were typically Western European and North American countries. It is only in the third time period,

when Japanese firms were investing heavily in China, that political hazards had a positive and significant coefficient estimate.

## **DISCUSSION AND CONCLUSION**

In our report, we have examined at a descriptive level and at a multivariate level the patterns of, and influences on, Japanese and Korean firms foreign market entry behaviors in the 1980 and 2003 period. The intent of this study is to identify the inter-organizational influences that rival and non-rival firms from each of the two countries had on the decision to enter a particular host country. A secondary intent of this study is to develop conceptual ideas about the potential inter-organizational level and firm-level characteristics have on not only entry behavior, but also the performance of entrants, in terms of the longevity in which a firm participates in a market. We have concentrated on the former goal in the empirical work in this report, while recognizing the need to augment this with a complementary analysis of exit behavior among the same set of firms that made the entries.

The descriptive analyses we have outlined in this study illustrate the early entry behavior of most Japanese firms and the strong investment positions these firms have established in major Western European, North American and Asian markets. Korean firms have likewise moved with some intensity in the large markets of China and the USA. In other developed markets, Korean firms were less active than Japanese firms, electing instead to enter developing and emerging economies.

These same patterns are reflected in the exponential event history analysis. As we can see from the results, Korean firms avoided Japanese competitors (those firms from the same industries) from period 1 to period 4. The coefficients are all negatively significant but interesting the size of coefficient estimates declines from period 1 to period 4. Meanwhile, Japanese firms initially (periods 1 and 2) avoided Korean firms but later tended to follow them. In this sense, coefficient estimates move from negative to positive.

We interpret these results as indicating that Korean firms avoided Japanese firms by entering developing and emerging markets earlier than Japanese counterparts. Japanese firms later moved into these emerging markets following the lead of Korean firms. By avoiding direct competition with Japanese firms, Korean firms entered markets that had higher levels of uncertainty. This is marked by the signs on the political hazards variable, which clearly shows the evidence for this conjecture. For Korean firms, the political hazards variable is always positively significant, while the same variable takes a negative, significant coefficient for Japanese firms, which turns positively significant in the later periods.

Another notable difference is the signs of a focal firm's entries in nearby countries. In the case of Korea, it was initially positive but turns negative from period 2. In the case of Japanese firms, it is consistently positively significant. These results show that Korean firms were more rationalized or strategically positioned, and avoided redundancies. Part of the reason for this is the later period in which Korean firms invested in which bilateral or multilateral trading agreements were more common permitting several foreign markets to be served from one FDI. With earlier timing to their investments, Japanese firms established subsidiaries in multiple adjacent countries, and might currently have too many subsidiaries in neighboring countries. We can label this result as a regional strategy for Korean firms versus a national strategy for Japanese firms. It may indicate that Korean firms, as later entrants, benefited from regional integration than the Japanese counterparts could possibly do so.

Interestingly, Japanese firms also tended to avoid other Japanese competitors at least in the first two periods, but not in the later two periods. Korean firms, however, do not show such a tendency. Korean competitors closely matched competitor moves in the same industry. The pattern of Japanese firms may indicate a sign of collusive behaviors avoiding direct competition among them in the early periods. Korean firm entries might indicate a leader-follower behavior in which leading firms such as Samsung Electronics and LG Electronics

led other firms in investing in a particular country. Such a conjecture requires additional empirical verification by distinguishing not between rival and non-rival firms but also between various identities (leaders and non-leaders) in rival firms.

Taken together, these results imply that Korean firms pursued rather different internationalization strategies than Japanese firms. Korean firms, as late entrants in the globalization game, opted to take greater risks by entering emerging markets, marked by greater levels of political uncertainty in our models, but likely also greater levels of uncertainty in other institutional dimensions. The most popular destinations of Korean firms were China, Southeast Asian countries, and transitional Eastern European countries that recently switched to a market economy from Communist regime. While doing so, Korean firms invested relatively less in North American or Western European countries where Japanese competitors had made strong footholds and where there were many strong domestic firms.

In selecting emerging and transition economies, Korean firms competed with other Korean firms head-to-head. They closely matched the foreign expansion of their Korean rivals. Korean firms deliberately avoided competition with Japanese rivals in well established markets where competitive risks are high, electing instead to undertake competition with Korean rivals in specific markets. Korean firms, as a group, avoided direct confrontation with strong Japanese rivals by entering high-risk emerging market countries. They, however, did not forgo benefits from competition as they closely matched the moves of other Korean rivals.

Japanese firms had a stronger competition avoidance strategy, as they avoided direct competition with both Japanese and Korean rivals up until the mid-1990s. This result is consistent with the sphere of influence hypothesis, which predicts collusive behaviors in oligopolistic industries. The results also seem to suggest that the risk or uncertainty

avoidance tendencies of Japanese firms were manifest in an avoidance of high political hazard countries at least in the first two periods, before many economies began to transition to a market economy.

Overall, this study highlights numerous notable differences between Korean and Japanese firms' foreign entry strategies. Japanese firms are characterized by risk avoiding behaviors as early entrants, focusing on the advanced countries and approach markets with relatively low political risks. Korean firms, as late entrants, chose a somewhat riskier approach by venturing into emerging markets that were characterized by high risk but might provide them untapped markets.

What remains uncovered in our examination of these trends is the performance consequences of these strategies. In balancing considerations between market uncertainty, competition with domestic rivals and competition with foreign rivals, is there a notable trade-off in firm performance? Particularly with respect to the longevity issues, if one country's firms (or rivals) begin to exit a nation, will there be substantial entry by the rivals that previously avoided entry into that country? Finally, with respect to individual firms and their influence on competitors, will leading firms in an industry – high status firms, large firms, or technologically strong firms – deter or heighten entry into a particular country by rivals?

Although we have not directly investigated these questions in this report, our understanding of the entry patterns and the influence of rivals on foreign entry will be more complete when we add to the entry influences we examined in this study, considerations of who is entering, and also consideration of what stimulates exit and what are the influences of exit on rivals entry decisions. This form of analysis will help us to not only understand how rival firms from different nations interact and influence each others' strategies in foreign markets, but also what are the competitive and performance consequences of these competitive interactions.

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**TABLE 1:**  
**Entries by Japanese Firms**  
**(Top 25 FDI recipients)**

	<b>Nation</b>	<b>Number of Entries</b>	<b>Date of Earliest Entry</b>	<b>Mean Date of Entry</b>
1.	USA	1231	1980	1991
2.	China	904	1980	1996
3.	Thailand	390	1980	1993
4.	United Kingdom	354	1980	1990
5.	Taiwan	282	1980	1990
6.	Malaysia	273	1980	1991
7.	Singapore	240	1980	1991
8.	Indonesia	234	1980	1994
9.	Germany	209	1980	1990
10.	Korea	175	1980	1991
11.	Hong Kong	166	1980	1993
12.	France	164	1980	1991
13.	Netherlands	158	1981	1991
14.	Australia	134	1980	1990
15.	Philippines	125	1980	1994
16.	Canada	106	1980	1989
17.	India	97	1980	1994
18.	Italy	86	1980	1990
19.	Spain	67	1980	1992
20.	Brazil	64	1980	1992
21.	Vietnam	62	1993	1997
22.	Mexico	57	1984	1994
23.	Belgium	54	1980	1991
24.	New Zealand	26	1983	1991
25.	Switzerland	25	1980	1990

**TABLE 2:**  
**Entries by South Korean Firms**  
**(Top 25 FDI recipients)**

	<b>Nation</b>	<b>Number of Entries</b>	<b>Date of Earliest Entry</b>	<b>Mean Date of Entry</b>
1.	China	562	1988	1997
2.	USA	274	1980	1996
3.	Indonesia	98	1987	1993
4.	Hong Kong	73	1981	1995
5.	Vietnam	72	1992	1997
6.	Philippines	38	1988	1995
7.	India	36	1989	1996
8.	United Kingdom	32	1987	1995
9.	Thailand	31	1987	1993
10.	Malaysia	29	1985	1993
11.	Germany	29	1980	1994
12.	Poland	23	1995	1998
13.	Australia	18	1987	1993
14.	Sri Lanka	16	1988	1992
15.	Singapore	15	1989	1996
16.	Taiwan	14	1990	1997
17.	Mexico	14	1990	1997
18.	Netherlands	12	1991	1996
19.	Brazil	12	1994	1997
20.	Guatemala	11	1989	1995
21.	Canada	10	1986	1994
22.	France	10	1988	1995
23.	Russia	9	1992	1996
24.	Turkey	8	1989	1995
25.	Myanmar	8	1994	1997

**TABLE 3:**  
**Entries by Japanese Firms by Region**

	<b>Region</b>	<b>Number of Entries</b>	<b>Date of Earliest Entry</b>	<b>Mean Date of Entry</b>
1.	Asia	2969	1980	1993
2.	North America	1337	1980	1990
3.	Western Europe	1236	1980	1991
4.	South America	176	1980	1993
5.	Australasia	163	1980	1990
6.	Eastern Europe	53	1986	1997
7.	Africa	24	1980	1991
8.	Middle East	17	1981	1993

**TABLE 4:**  
**Entries by South Korean Firms by Region**

	<b>Region</b>	<b>Number of Entries</b>	<b>Date of Earliest Entry</b>	<b>Mean Date of Entry</b>
1.	Asia	1011	1981	1996
2.	North America	284	1980	1995
3.	Western Europe	117	1980	1995
4.	South America	77	1981	1995
5.	Eastern Europe	44	1989	1997
6.	Australasia	27	1987	1994
7.	Africa	19	1988	1995
8.	Middle East	5	1994	1997

**TABLE 5:**  
**Entries by Japanese Firms**  
**(Top 25 firms making FDIs)**

Firms	Number of Entries	Country hosting most FDIs (# FDIs)	Main Industry
1. Matsushita Electric Industrial	82	USA	Electric & Electronic Equipment
2. Honda Motor	77	USA	Motor Vehicles & Auto Parts
3. NEC	73	USA	Electric & Electronic Equipment
4. Toyota Motor	68	USA	Motor Vehicles & Auto Parts
5. Toshiba	61	USA	Electric & Electronic Equipment
6. Mitsubishi Electric	58	USA	Electric & Electronic Equipment
7. Asahi Glass	53	USA	Stone, Clay & Glass Products
8. Sony	51	Germany	Electric & Electronic Equipment
9. Denso	51	India	Electric & Electronic Equipment
10. Sanyo Electric	50	China	Electric & Electronic Equipment
11. Canon	50	USA	Electric & Electronic Equipment
12. Sumitomo Electric Industries	49	USA	Non Ferrous Metal & Metal Prod.
13. Fujitsu	49	USA	Electric & Electronic Equipment
14. Yamaha Motor	48	China	Motor Vehicles & Auto Parts
15. KAO	45	China	Chemicals
16. Dainippon Ink & Chemicals	43	China	Chemicals
17. Nissan Motor	43	USA	Motor Vehicles & Auto Parts
18. Omron	41	USA	Electric & Electronic Equipment
19. Sharp	41	China	Electric & Electronic Equipment
20. Komatsu	40	USA	Machinery
21. Hitachi	40	China	Electric & Electronic Equipment
22. Kobe Steel	39	USA	Iron & Steel
23. Ebara	39	USA	Machinery
24. Kyocera	38	USA	Electric & Electronic Equipment
25. Ajinomoto	36	China	Foods

**TABLE 6:**  
**Entries by South Korean Firms**  
**(Top 25 firms making FDIs)**

Firms	Number of Entries	Country hosting most FDIs (# FDIs)	Main Industry
1. LG Electronics Inc.	59	China	Electric & Electronic Equipment
2. Samsung Electronics	51	China	Electric & Electronic Equipment
3. Daewoo Motor Co. Ltd.	22	Netherlands	Motor Vehicles & Auto Parts
4. Daewoo Electronics	21	France	Electric & Electronic Equipment
5. SK Corporation	17	USA	Chemicals
6. Hynix Semiconductor	15	USA	Electric & Electronic Equipment
7. Hyundai Motor Co. Ltd.	14	USA	Motor Vehicles & Auto Parts
8. Samsung Electro-Mech	13	China	Electric & Electronic Equipment
9. Pohang Iron & Steel	12	China	Iron & Steel
10. Hyosung Corporation	11	China	Drugs
11. Cheil Jedang Corporation	10	USA	Foods
12. Medison Co. Ltd.	10	USA	Electric & Electronic Equipment
13. Kia Motors Corporation	9	China	Motor Vehicles & Auto Parts
14. Trigem Computer Inc.	9	China	Electric & Electronic Equipment
15. LG Industrial System	9	China	Machinery
16. Samsung Corning Co.	8	USA	Stone, Clay & Glass Products
17. Poongsan Corporation	8	USA	Non Ferrous Metal & Metal Prod.
18. Samsung SDI Co. Ltd.	8	USA	Electric & Electronic Equipment
19. Kolon Industries Inc	7	USA	Drugs
20. Pan-Pacific Co. Ltd.	7	China	Textile Products
21. Kukdong Co. Ltd.	7	Indonesia	Textile Products
22. Hanwha Corporation	7	USA	Drugs
23. Hyundai Mobis	7	China	Motor Vehicles & Auto Parts
24. Dusan Heavy Industries	7	Vietnam	Non Ferrous Metal & Metal Prod.
25. E-Land Ltd.	6	USA	Textile Products

**TABLE 7: Korea**  
**Descriptive Statistics and Correlations**

<b>Variables</b>	<b>Mean</b>	<b>S.D.</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>	<b>4.</b>	<b>5.</b>	<b>6.</b>	<b>7.</b>	<b>8.</b>	<b>9.</b>	<b>10.</b>	<b>11.</b>	<b>12.</b>	<b>13.</b>	<b>14.</b>	<b>15.</b>	<b>16.</b>
<b>1.</b> Entry	0.001	0.029	--															
<b>2.</b> Focal Firm Entries in Nearby Countries	0.053	2.277	0.004	--														
<b>3.</b> Korean Rival Entries	0.395	3.703	0.120	0.013	--													
<b>4.</b> Korean Firms' Entries	13.558	75.505	0.144	0.013	0.649	--												
<b>5.</b> Focal Firm Entries in Host Countries	0.006	0.096	0.404	0.015	0.258	0.315	--											
<b>6.</b> Japanese Rival Entries	3.400	32.705	0.067	0.003	0.287	0.381	0.131	--										
<b>7.</b> Japanese Firms' Entries x 10 <sup>2</sup>	1.926	6.267	0.098	0.012	0.383	0.684	0.229	0.532	--									
<b>8.</b> Firm Performance	-0.087	5.025	0.000	-0.001	-0.002	-0.002	-0.003	-0.002	-0.002	--								
<b>9.</b> Firm Size x 10 <sup>3</sup>	1.036	3.117	0.040	0.025	-0.008	-0.010	0.110	0.003	-0.009	0.005	--							
<b>10.</b> Technological Intensity x 10 <sup>-3</sup>	0.033	3.880	0.000	0.000	-0.001	-0.001	-0.001	0.001	0.000	-0.042	-0.003	--						
<b>11.</b> Advertising Intensity x 10 <sup>-3</sup>	0.015	0.001	0.001	0.000	0.000	-0.001	0.000	0.001	0.000	-0.135	-0.004	0.859	--					
<b>12.</b> GDP Growth	0.080	0.526	-0.001	0.001	-0.005	-0.009	-0.003	-0.007	-0.021	0.000	0.000	0.000	0.000	--				
<b>13.</b> Population Growth	0.016	0.016	-0.007	-0.003	-0.022	-0.040	-0.015	-0.027	-0.073	0.001	0.008	-0.001	-0.001	0.068	--			
<b>14.</b> FDI/GDP x 10 <sup>2</sup>	0.155	1.254	-0.002	-0.001	-0.009	-0.014	-0.005	-0.008	-0.013	0.000	-0.001	0.000	0.000	-0.007	-0.034	--		
<b>15.</b> Trade/GDP (%)	0.770	0.494	-0.008	0.004	-0.023	-0.043	-0.011	-0.034	0.035	-0.002	-0.009	-0.001	0.000	-0.081	-0.055	0.297	--	
<b>16.</b> Political Hazards	0.712	0.219	0.011	0.003	0.037	0.049	0.015	-0.019	-0.059	0.004	0.018	0.001	0.000	0.123	0.244	-0.095	-0.024	--

Significant at the 0.05 level (two-tailed test) when Pearson correlations >0.001 or <-0.001.

**TABLE 8: Japan  
Descriptive Statistics and Correlations**

<b>Variables</b>	<b>Mean</b>	<b>S.D.</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>	<b>4.</b>	<b>5.</b>	<b>6.</b>	<b>7.</b>	<b>8.</b>	<b>9.</b>	<b>10.</b>	<b>11.</b>	<b>12.</b>	<b>13.</b>	<b>14.</b>	<b>15.</b>	<b>16.</b>
<b>1. Entry</b>	0.003	0.054	--															
<b>2. Focal Firm Entries in Nearby Countries</b>	0.078	0.764	0.051	--														
<b>3. Japanese Rival Entries</b>	2.842	26.903	0.144	0.015	--													
<b>4. Japanese Firms' Entries x10<sup>2</sup></b>	1.677	5.703	0.147	0.035	0.547	--												
<b>5. Focal Firm Entries in Host Country</b>	0.069	0.586	0.306	0.105	0.309	0.444	--											
<b>6. Korean Rival Entries</b>	0.316	3.772	0.072	0.018	0.214	0.336	0.145	--										
<b>7. Korean Firms' Entries</b>	10.948	67.495	0.122	0.024	0.380	0.678	0.297	0.565	--									
<b>8. Firm Performance</b>	0.041	0.082	0.003	-0.003	-0.003	-0.030	-0.013	-0.021	-0.037	--								
<b>9. Firm Size x 10<sup>3</sup></b>	3.423	7.480	0.052	0.166	0.009	-0.004	0.129	-0.007	-0.005	-0.026	--							
<b>10. Export Intensity</b>	0.146	0.165	0.022	0.062	0.032	0.007	0.065	0.001	0.010	0.016	0.221	--						
<b>11. Advertising Intensity</b>	0.009	0.015	0.003	0.009	-0.021	-0.002	0.009	0.015	-0.004	0.084	0.001	-0.067	--					
<b>12. Technological Intensity</b>	0.018	0.025	0.016	0.060	0.012	0.017	0.058	0.024	0.017	0.145	0.173	0.180	0.136	--				
<b>13. GDP Growth</b>	0.079	0.524	-0.003	-0.002	-0.007	-0.019	-0.009	-0.003	-0.008	-0.001	0.000	0.000	0.000	0.001	--			
<b>14. Population Growth</b>	0.016	0.016	-0.016	-0.017	-0.034	-0.079	-0.038	-0.022	-0.043	0.024	0.003	-0.005	0.002	-0.015	0.066	--		
<b>15. FDI/GDP x 10<sup>2</sup></b>	0.151	1.254	-0.004	0.002	-0.008	-0.012	-0.008	-0.006	-0.013	-0.003	0.000	0.001	0.000	0.001	-0.008	-0.046	--	
<b>16. Trade/GDP (%)</b>	0.754	0.489	-0.010	0.003	-0.038	0.036	-0.005	-0.016	-0.035	-0.030	-0.004	0.008	-0.003	0.014	-0.079	-0.060	0.291	--
<b>17. Political Hazards</b>	0.730	0.222	-0.010	-0.016	-0.030	-0.074	-0.042	0.027	0.031	0.055	0.006	-0.011	0.005	-0.031	0.113	0.269	-0.099	-0.038

Significant at the 0.05 level (two-tailed test) when Pearson correlations >0.001 or <-0.001.

**TABLE 9: Korea**  
**(Exponential Event History Model: Entry=1)**

<b>Variables</b>	<b>1980-1986</b>		<b>1987-1991</b>		<b>1992-1996</b>		<b>1997-2002</b>	
Korean Rival Entries	0.153*	(0.063)	0.068***	(0.016)	0.022***	(0.004)	0.008***	(0.002)
Korean Non-rival Entries	-0.076	(0.078)	0.012***	(0.003)	0.002***	(0.000)	0.002***	(0.000)
Japanese Rival Entries	-0.011*	(0.005)	-0.011***	(0.003)	-0.003***	(0.001)	-0.001*	(0.000)
Japanese Non-rival Entries	0.002	(0.002)	0.000	(0.000)	0.000***	(0.000)	0.000***	(0.000)
Focal Firm Entries in Host Country	6.645***	(0.836)	4.907***	(0.151)	1.419***	(0.065)	0.566***	(0.031)
Focal Firm Entries in Nearby Countries	2.206*	(0.865)	-5.829***	(0.989)	-1.605***	(0.133)	-0.366***	(0.049)
Firm Performance	-0.188	(2.179)	-0.652	(0.367)	0.067	(0.116)	0.019	(0.019)
Firm Size	0.000	(0.000)	0.000	(0.000)	0.000***	(0.000)	0.000	(0.000)
Technological Intensity x 10 <sup>6</sup>	-0.063	(1.423)	-1.664	(1.907)	-1.226*	(0.590)	-0.001	(0.003)
Advertising Intensity x 10 <sup>6</sup>	-2.336	(4.829)	-0.089	(0.249)	0.000	(0.000)	0.005	(0.004)
GDP Growth	0.110	(0.699)	-0.106	(0.230)	-0.064	(0.106)	-0.228	(0.206)
Population Growth	-16.521	(24.749)	-0.848	(3.037)	-22.830***	(4.252)	-22.617***	(5.596)
FDI/GDP	-0.002	(0.005)	-0.002	(0.003)	-0.001	(0.001)	-0.001	(0.001)
Trade/GDP	0.008	(0.005)	0.002	(0.002)	0.000	(0.001)	0.002**	(0.001)
Political Hazards	-0.723	(1.510)	1.446***	(0.426)	2.595***	(0.264)	1.777***	(0.283)
log likelihood	-125.26		-1038.46		-3241.65		-3615.37	
Model chi-square	390.67***		2076.37***		2948.07***		3543.23***	
No. of Observations	264155		445970		505389		630204	
No. of Entries	32		244		611		689	

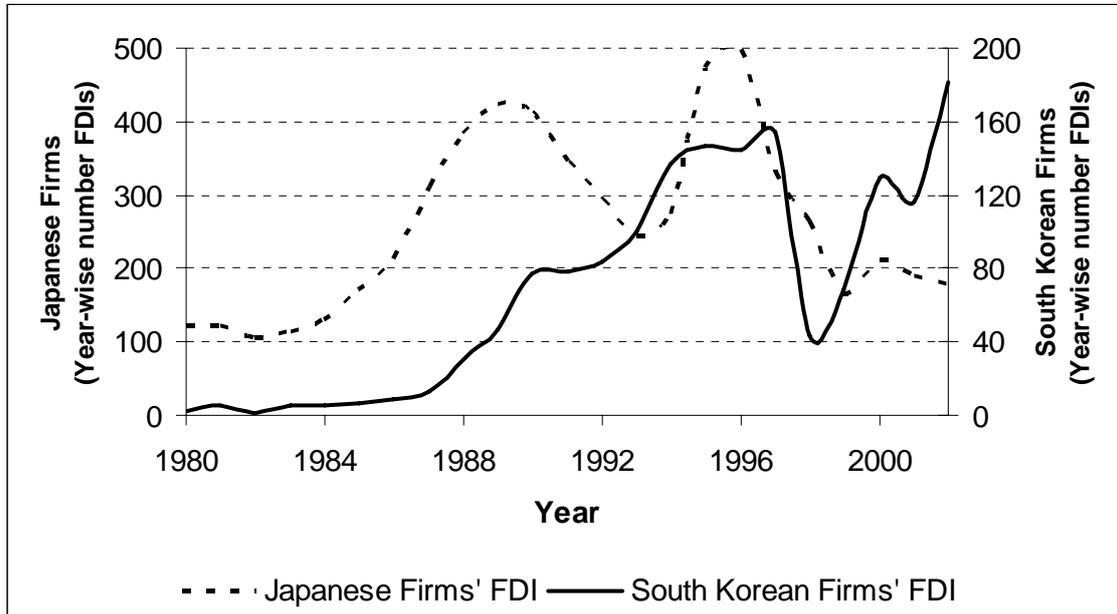
\*\*\*  $p < 0.001$ ; \*\*  $p < 0.01$ ; \*  $p < 0.05$ ; (all two-tailed tests)

**TABLE 10: Japan**  
**(Exponential Event History Model: Entry=1)**

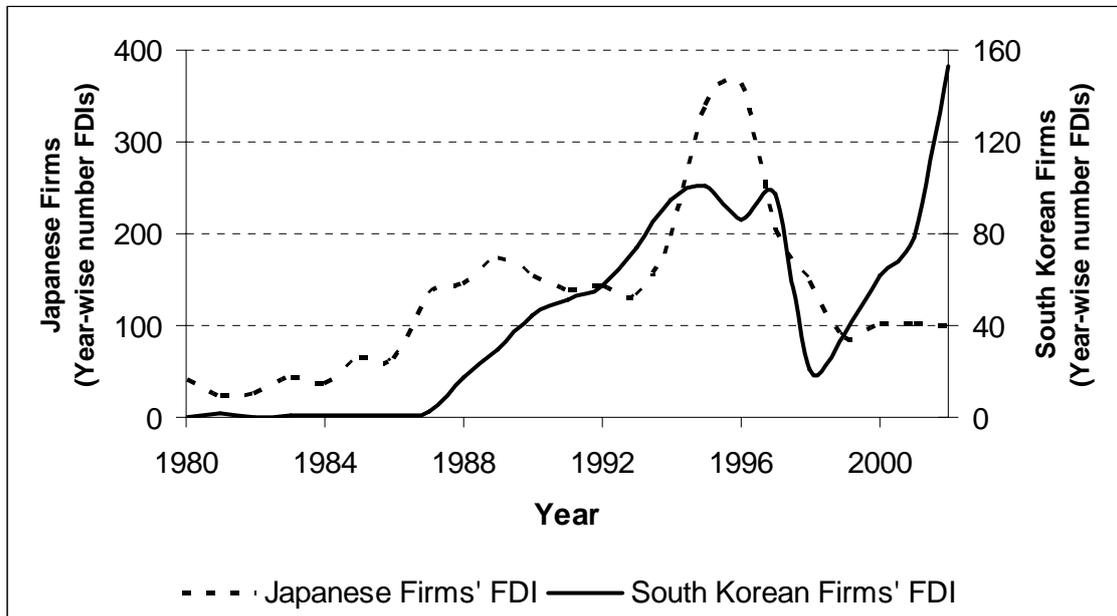
<b>Variables</b>	<b>1980-1986</b>		<b>1987-1991</b>		<b>1992-1996</b>		<b>1997-2002</b>	
Japanese Rival Entries	-0.002**	(0.001)	-0.001***	(0.000)	0.000	(0.000)	0.001***	(0.000)
Japanese Non-rival Entries	0.007***	(0.000)	0.002***	(0.000)	0.000***	(0.000)	0.000***	(0.000)
Korean Rival Entries	-0.481***	(0.080)	0.010	(0.015)	0.005**	(0.002)	0.002	(0.001)
Korean Non-rival Entries	-0.254***	(0.010)	-0.056***	(0.003)	0.005***	(0.000)	0.002***	(0.000)
Focal Firm Entries in Host Country	0.451***	(0.021)	0.147***	(0.007)	0.118***	(0.007)	0.082***	(0.006)
Focal Firm Entries in Nearby Countries	0.257***	(0.023)	0.132***	(0.009)	0.124***	(0.009)	0.100***	(0.008)
Firm Performance	1.814*	(0.745)	0.256	(0.432)	0.598	(0.545)	2.406***	(0.461)
Firm Size	0.000	(0.000)	0.000***	(0.000)	0.000***	(0.000)	0.000***	(0.000)
Export Intensity	1.032***	(0.263)	1.213***	(0.209)	0.727**	(0.213)	1.106***	(0.219)
Advertising Intensity	12.747***	(3.787)	3.414	(2.545)	4.176	(2.608)	2.519	(3.140)
R&D Intensity	-2.801	(2.292)	2.697	(1.482)	2.694	(1.473)	1.521	(1.408)
GDP Growth	-0.115	(0.237)	0.095	(0.084)	0.043	(0.081)	-0.263	(0.207)
Population Growth	-30.170***	(4.631)	-2.175	(1.357)	-22.946***	(2.852)	-25.912***	(3.942)
FDI/GDP	-0.002	(0.002)	-0.001**	(0.000)	-0.001*	(0.001)	-0.001*	(0.001)
Trade/GDP	-0.003***	(0.001)	0.002***	(0.001)	0.005***	(0.000)	0.003***	(0.001)
Political Hazards	-1.580***	(0.220)	-2.559***	(0.156)	0.694***	(0.175)	0.272	(0.207)
log likelihood	-3731.68		-6893.67		-6567.78		-5481.79	
Model chi-square	3799.59***		4670.85***		4564.05***		3599.70	
No. of Observations	458047		344566		352047		422666	
No. of Entries	761		1422		1348		1039	

\*\*\*  $p < 0.001$ ; \*\*  $p < 0.01$ ; \*  $p < 0.05$ ; (all two-tailed tests)

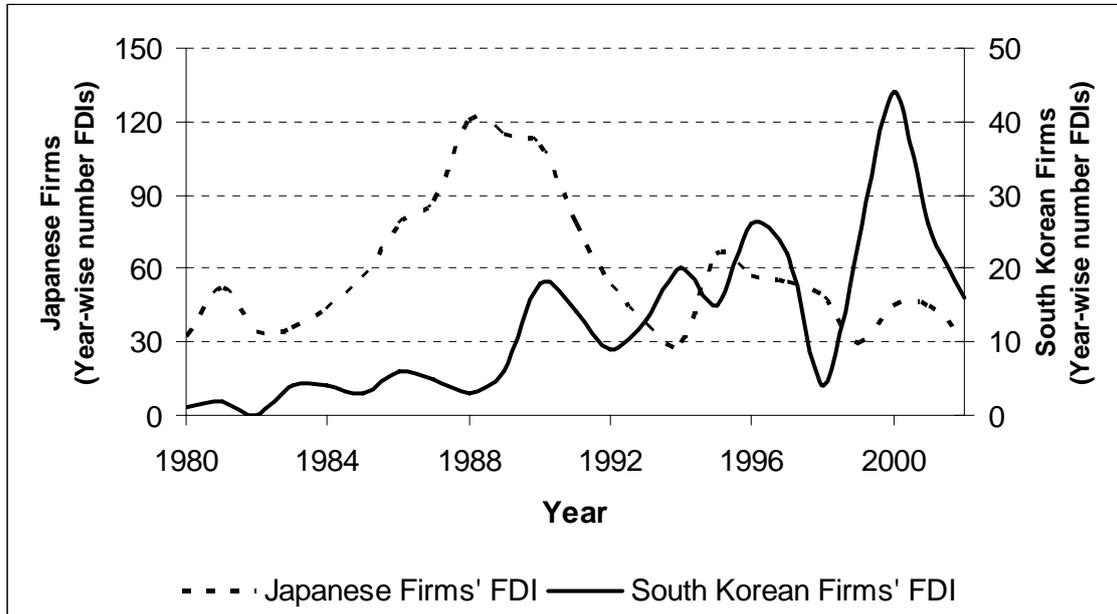
**FIGURE 1:**  
**Entries by Year by Japanese and Korean Firms**  
**(Worldwide)**



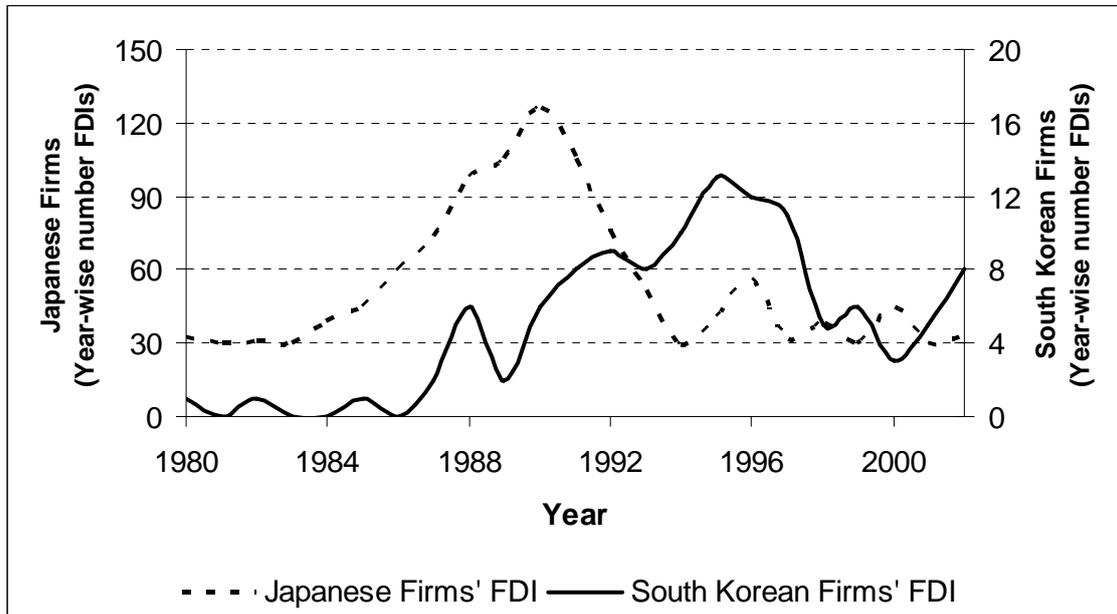
**FIGURE 2:**  
**Entries by Year by Japanese and Korean Firms**  
**(Asia)**



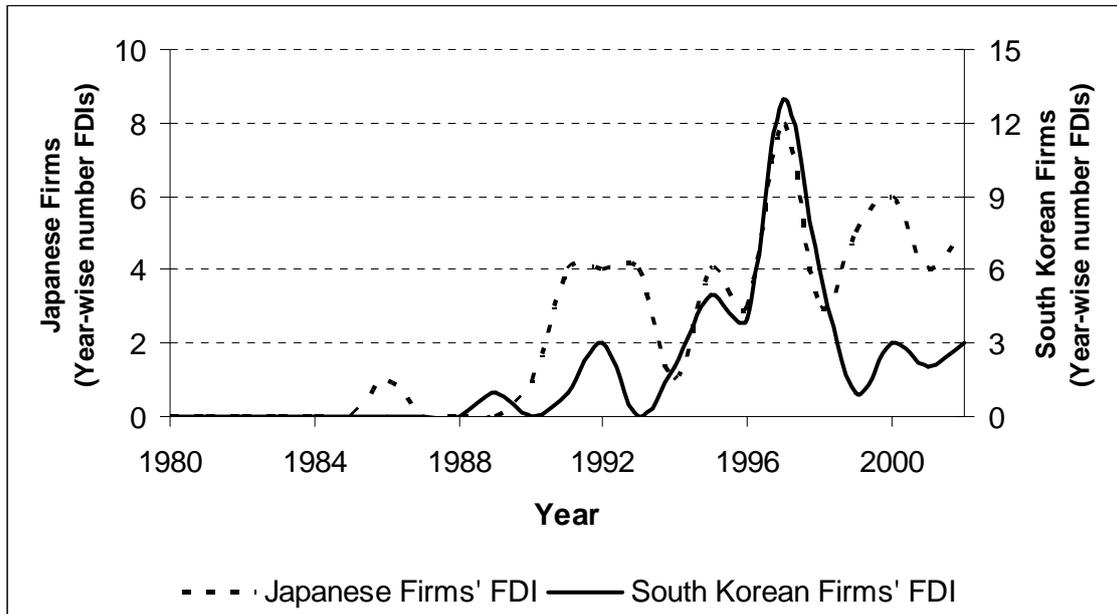
**FIGURE 3:**  
**Entries by Year by Japanese and Korean Firms**  
**(North America)**



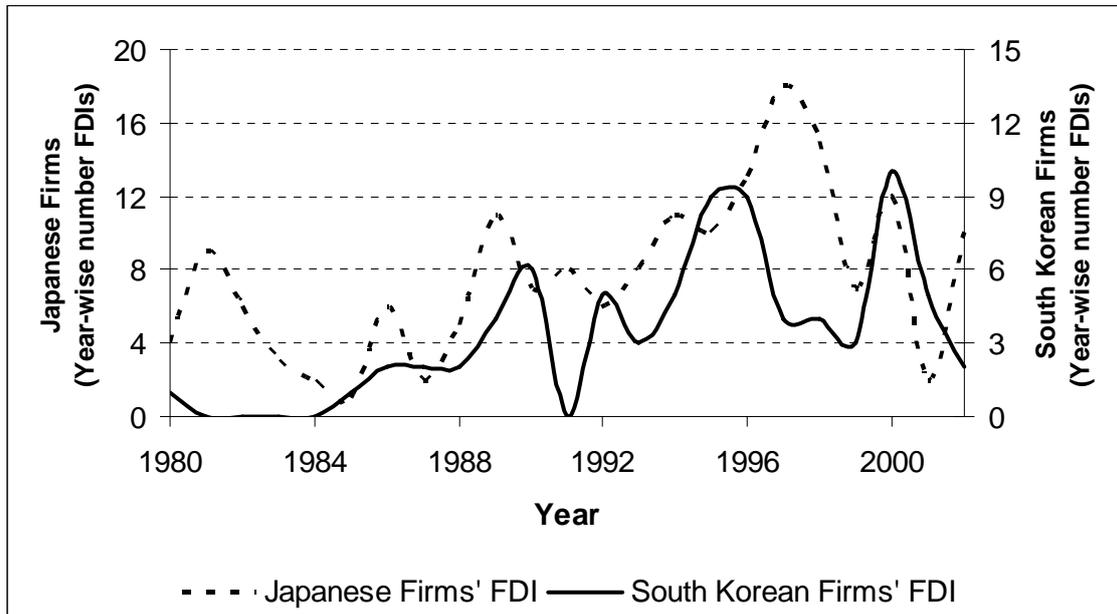
**FIGURE 4:**  
**(Western Europe)**



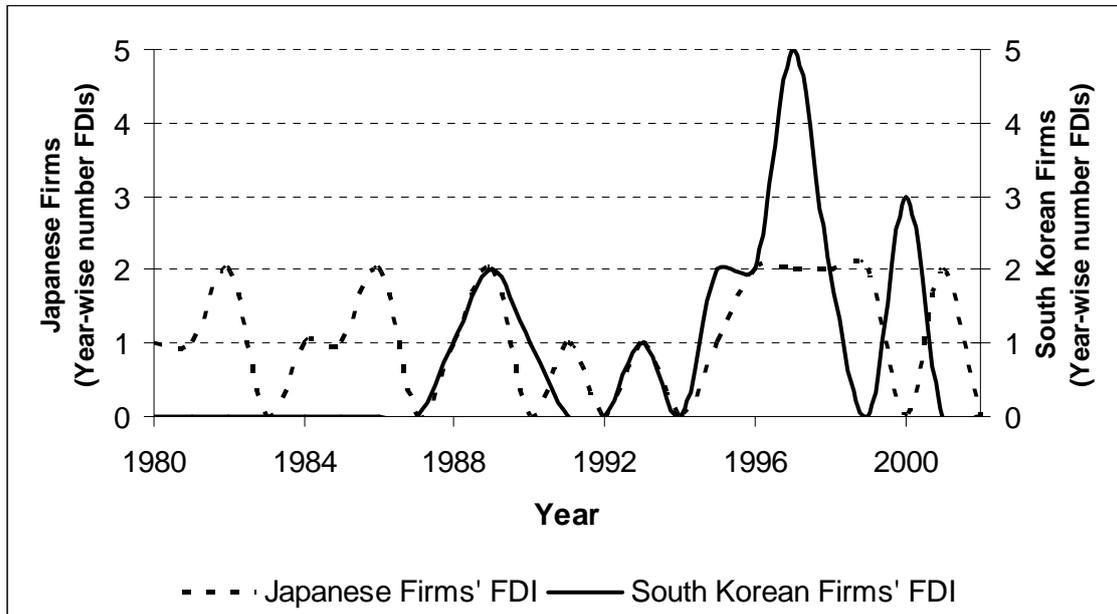
**FIGURE 5:**  
**(Eastern Europe)**



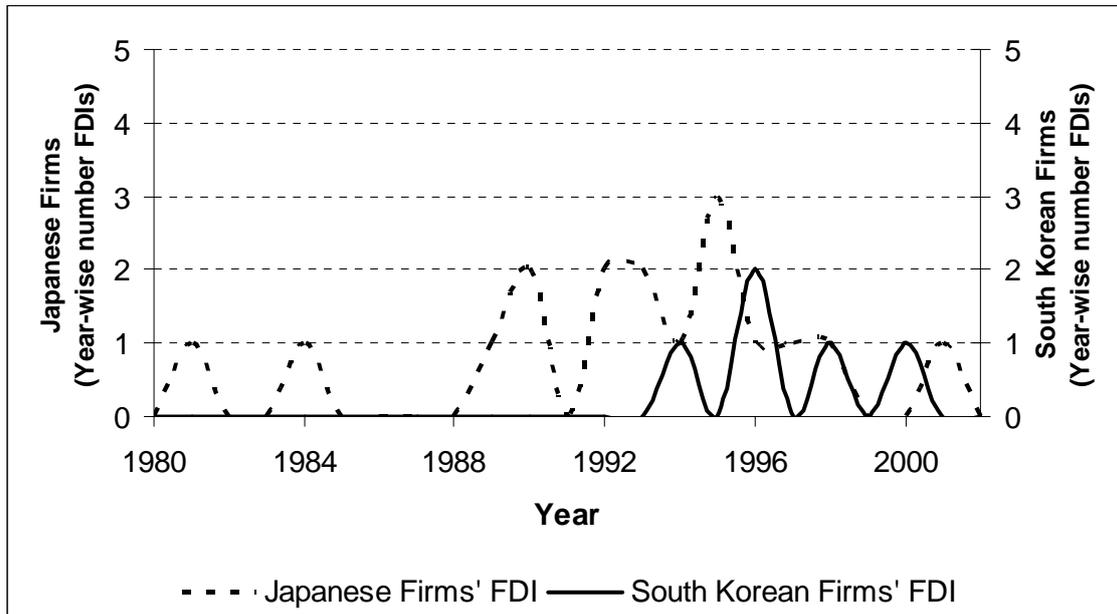
**FIGURE 6:**  
**(South America)**



**FIGURE 7:**  
**(Africa)**



**FIGURE 8:**  
**(Middle East)**



**FIGURE 9:**  
**(Australasia)**

