

Summary

Japanese Firms and Inward and Outward Foreign Direct Investment

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Recent years have seen large increases in worldwide FDI flows. According to economic theory, foreign direct investment is a form of long-term international capital movement which is accompanied by investors' intangible assets. Although the globalization of firms' activities has profound ramifications, the number of empirical studies on the globalization of Japanese firms and the impact of both outward and inward FDI on the Japanese economy is still limited. This study has tried to address some of the questions relating to the activities of multinational firms, examining, for example, why firms serve foreign countries through foreign affiliates instead of other modes; whether foreign direct investment by Japanese firms changes their domestic demand for labor; and how the entry of foreign firms affects domestically-owned firms in Japan.

The analysis presented was divided into two major parts. Part 1, including Chapters 2 to 4, examined various issues related to outward FDI by Japanese firms. Part 2, i.e. Chapters 5 to 8, looked at the effects of inward FDI in Japan. The major findings of each of the chapters can be summarized as follows.

Chapter 2 investigated the determinants of Japanese manufacturing firms' choice as to whether to serve foreign markets through FDI or through exports by testing the proximity-concentration model. In addition, it was examined whether firm-level heterogeneity determines firms' overseas sales channel. The estimation results showed that freight cost is one of the determinant of the channel firms choose to serve foreign markets. The proximity-concentration hypothesis, which suggests that firms enjoying greater economies of scale choose exports over FDI, while the opposite is the case for firms facing high freight costs, partly held for Japanese manufacturing firms.

However, using control variables such as freight costs and scale economies, it could not be shown that firm-level heterogeneous productivity determines firms' overseas sales channel. In other words, we found that, at least when data of listed firms only are employed, as was the case in this study, no statistically significant evidence could be found suggesting that within a particular industry, more productive firms were more likely to choose FDI than exports.

Chapter 3 sought to examine empirically theories dealing with firms' decision to serve foreign markets through various modes. According to the literature, more productive firms tend to choose FDI rather than exporting, outsourcing or licensing to serve foreign markets. Economic theory suggests that each of these modes has its advantages and disadvantages. FDI, for example, is associated with sunk costs, while outsourcing potentially involves contract-enforcement problem; licensing, finally, carries the danger of the leakage of technology to competitors. Against this background, the aim of Chapter 3 was to investigate

whether heterogeneous firm productivity helps to explain firms' international activities. The results of the chapter can be summarized as follows. The comparison of productivity levels of firms engaged in various international activities shows the following pattern. When exports and FDI are used as the relevant criteria, then firms that engage in both activities display the highest productivity. Among firms that engage in only one of the two, those that export show higher productivity than those that engage in FDI. Productivity is lowest for those firms that engage in neither of these international activities.

The pattern is similar when examining outsourcing and FDI. Those firms that engage in both enjoy the highest productivity, while those that outsource are more productive than those engaging in FDI. Again, those engaged in neither of these activities are the least productive.

Taking licensing and FDI as the criteria, again firms that engage in both are the most productive, while those that engage in neither are the least productive. Among those that engage either in licensing or FDI, the former are more productive.

The regression analysis including industry dummies showed that firms that are more productive choose exporting rather than FDI. On the other hand, regression analysis showed the more productive firms choose FDI rather than licensing or outsourcing. Therefore, the empirical analysis of chapter 3 shows that all predictions based on the economic literature are not necessarily conformed to the activities of the firms in manufacturing industries. The results suggested that the various modes for serving overseas markets have an important role for the more productive firms.

Chapter 4 tried to determine whether outward FDI and outsourcing increased parent firms' demand for skilled labor. At the industry level, we did not obtain consistent evidence to suggest that overseas production and outsourcing lead to an increase in skilled labor ratio. Some evidences are found to suggest that overseas production and outsourcing lead to an increase in firms' skilled-labor ratio in the head office, but to a decrease in the whole firm. At the firm level, however, clear evidence is found supporting the hypothesis that firms that have transferred production abroad and/or rely on outsourcing show higher skilled-labor ratios. Another result of the investigation was that firms which rely on overseas production reduced both the number of blue-collar workers and the number of white-collar workers they employ during the course of Japan's prolonged recession. Because reduction in the number of blue-collar workers was more pronounced than that in the number of white-collar workers, the skilled-labor ratio at multinational firms increased slightly.

The firm-level estimation showed that firms which transfer production processes overseas or outsource to unaffiliated firms experienced a greater increase in the skilled labor ratio than firms which did neither. At the firm level, outward FDI and outsourcing contributed to firms' skill upgrading. In particular, the results showed that while foreign production in Asia slightly increased the domestic number of white-collar workers. This finding is consistent with the notion that the transfer of labor intensive production processes to Asia decreases parent firms' domestic demand for blue-collar workers and thus raises the skilled labor ratio. In contrast, overseas production in developed countries does not have such effects.

Turning to the second part of the study and the role of inward FDI, Chapter 5 investigated whether foreign-owned firms are more productive than domestically-owned firms. First, productivity and business performance indicators were compared. Second, the productivity level and productivity growth of foreign-owned and domestically-owned firms were examined, controlling for factors like R&D intensity, years of operation and scale.

The results of the investigation can be summarized as follows. First, the average tests showed that in the manufacturing sector as a whole the productivity and other performance indicators, such as labor productivity, the current profit-to-sales ratio, and the R&D intensity of foreign-owned firms are significantly higher than those of domestically-owned firms. Second, the TFP level and the TFP growth rate of foreign-owned firms were higher than those of domestically-owned firms when controlling for firm fixed effects and other factors influencing firms' productivity.

In recent years, inward FDI in Japan has tended to take the form of M&A investment rather than greenfield investment, and Chapter 6 investigated in detail what kind of effects M&A investments in Japan have. The results showed that out-in M&A target firms tended to score better in terms of R&D intensity, current profit per worker and wage levels to begin with when compared with other firms. In addition, however, they also showed an improvement in their business efficiency after the M&A, while the target firms of in-in M&As did not.

Chapter 7 explored differences in the adjustment speed of employment between foreign-owned and domestic firms. The analysis is motivated by the fact that Japanese

companies tend to rely on the life-time employment system and therefore are reluctant to lay off staff even in times of economic hardship. The empirical analysis showed that the adjustment speed of employment at foreign-owned firms was slightly higher than at domestically-owned firms.

Economic theory suggests that the entry of foreign firms affects domestic firms in various ways, including through the competitive pressure they exert and technological spillovers. These issues were examined in Chapter 8. The findings suggested that an increase in foreign-owned firms' share in a particular industry lowers the TFP growth rate of domestically-owned firms. This means that the competitive pressure exerted by foreign-owned firms has a negative impact on domestically-owned firms. What is more, at least with the data used here, we could not show that domestic firms benefited from technological spillovers.

Taken together, the results obtained in the various chapters nevertheless suggest that the Japanese economy benefits from inward FDI. Since foreign-owned firms have a higher productivity than domestically-owned firms and out-in M&As raise the productivity level of Japanese industry overall through the 'share effect', FDI raises the productivity of the Japanese economy as a whole. If the target set out by Prime Minister to double the stock of foreign direct investment is achieved, the higher productivity of foreign-owned firms would lead to increases in the productivity of firms targeted in out-in M&As. From a macro perspective, the share effect has a positive impact on the productivity of the Japanese economy. However, it is possible that competitive pressures lower the TFP growth rate of

domestically-owned firms in industries with a large number of foreign-owned firms.

On the other hand, further investigations on the issue of technology spillover are necessary. Using a more detailed data set would make it possible to improve the analysis along the following lines: While the findings suggest that an increase in foreign-owned firms' share in an industry lowers the productivity growth of domestically-owned firms, this might not be the case for domestically-owned firms that act as subcontractors to foreign firms. It would therefore be interesting to examine whether such subcontractors show an improvement in productivity as a result of spillovers.

Another finding was that the productivity of out-in M&A target firms improved after the M&A. One possible explanation for this is technology transfers from the foreign firm. One way to explore this issue would be to examine whether out-in M&A target firms show an increase in the number of patents which would serve as an index of technological knowledge.

While it is unclear when Japan will manage to emerge from the recession that has plagued its economy for the past decade-and-a-half, what seems certain is that the integration with the global economy will continue to deepen. Both outward and inward foreign direct investment can play an important role in accelerating necessary structural change and contribute to long-run economic growth. While such structural change may sometimes be painful, being forced to compete with multinational companies, both abroad and at home, can be an important catalyst in strengthening the international competitiveness of Japanese firms.