A COMMENT ON THE CHAPTER "PATTERNS OF ENTRY OF JAPANESE MULTINATIONALS INTO U.S. AND EUROPEAN MANUFACTURING INDUSTRIES", BY HIDEKI YAMAWAKI, FORTHCOMING, JAPANESE DIRECT INVESTMENT IN A UNIFYING EUROPE: IMPACTS ON JAPAN AND THE EUROPEAN COMMUNITY, ED. D. ENCARNATION AND M. MASON.

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The chapter by Hideki Yamawaki compiles creatively unusual data on the growing expansion of Japanese investment in both Europe and the United States. He asks two questions. First, to what extent is the industrial distribution of investment, and the strategic behavior of Japanese firms, the same in the two regions? Second, are investments coordinated by parents owning subsidiaries in Europe and the U.S.?

Even though the results of this endeavor more satisfactorily address the first question than the second, Yamawaki's comparison of the investment patterns in the two regions is unique. It points even at this stage prior to more formal testing to intriguing patterns. At the same time, as he notes, many of the reputed relationships may not hold up to a statistical scrutiny. A major influence on many of these patterns may be simply, as discussed below, that Japanese subsidiaries in the U.S. are on average older.

The most exciting contribution made by Yamawaki is the description not only of the simple distribution of investments, but also of what he calls the "sequential entry process". The straightforward analysis is that Japanese entry into manufacturing is about two times more numerous in the U.S. than in Europe, the target industries in the U.S. are

transport equipment, electrical and electronic equipment, and nonelectric machinery, and the primary industry recipient in Europe is the electrical and electronic equipment industry. These data conceal, however, a partial clue to the second question, as the electrical and electronic industry has the remarkable trait that 80% of the European subsidiaries have a U.S. counterpart owned by the same Japanese parent.

The results regarding sequential entry are especially provoking. Section IV presents tersely the statistical facts regarding the pattern of diversification. (Diversification is measured by whether the subsidiary is outside the parent's 2-digit industry.) There is a much greater diversification by Japanese companies in the U.S. (15% of all subsidiaries) than in Europe (8%). A very engaging finding is that in both the U.S. and Europe, certain industries are more likely to serve as points of expansion into other industries; these common industries are chemicals and nonferrous metals. However, the electrical and electronic industries tend to be more prominent in Europe, and the non-electrical machinery industry in the U.S., as platforms from which Japanese firms have expanded into other industries. It is of importance that the target industries vary dramatically, with Japanese firms diversifying into non-electrical machinery, electrical, and transportation industries in the U.S. and into largely non-electrical machinery in Europe.

The above are the presented facts. Their interpretation depends upon the questions we want to ask and the qualifications we should add. For example, one important qualification

is the effect of time. It seems that Japanese investments have been longest concentrated in the electrical and electronic industries in Europe; hence, it may be guessed that many of the Japanese parents having already invested in this industry have expanded into others, since they have simply been longer in Europe.

What we do not know, in fact, is whether the industrial diversification patterns hold at the firm level: do Japanese firms already in the European electrical and electronics industry diversify into other industries? Is diversification influenced by previous investments, and if so, what is the effect of time in explaining the difference in investment patterns?

These issues are relevant for sorting out two different influences on foreign direct investment. The first is simply the conditions of the home market on outward investment, that is, does home rivalry "push" investment to other foreign markets.[1] Traditionally, the literature on foreign direct investment has focussed on this extension of home market advantages (e.g. brand labels, technology) to other countries. The second influence is how the technological strengths of the target country "pull" foreign investment into particular industries. It is not hard to imagine, for example, that non-American companies would take equity stakes in U.S. biotechnology firms in order to have access to the resident technology.[2] In fact, as Yamawaki (forthcoming) has already shown,

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[1]See Yamawaki (1986) for a study on the home market influence on export pattersn.

[2]See Shan, 1992, for evidence in this regard.

Japanese investment in Europe has flown to the high wage German location in technologically-sophisticated industries, reflecting the importance of a skilled work force and resident technologies.[3]

These considerations are relevant to the current study in two regards: the initial distribution of investments and the pattern of expansion. It is possible that a firm invests in Germany for the sole purpose of accessing the resident technological strengths in chemicals. However, it is difficult to imagine that a firm would undertake such an investment unless it already had experience in chemicals. It is probable, therefore, that both influences are often at work: firms tend to exploit their home advantage overseas, but they are also drawn to locating operations in regions already strong in the relevant technologies.

The kind of story to which I think the data presented by Yamawaki alludes is the following. In both regions, Japanese investment is pushed outward due to home rivalry. The primary example is the electrical and electronics industry, where the push of home market rivalry explains why the same firms in this industry own subsidiaries in both regions. Competition in the U.S. and Europe is simply the extension of home market oligopolistic rivalry across borders. (The destruction of the American consumer electronics industry was very likely a secondary consequence of this fundamental rivalry.)

However, once these firms have established positions in

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[3]See Cantwell, 1989, for broad evidence, and Kogut and Chang, 1991, for a discussion of Japanese sourcing of technology in the U.S..

the U.S. and Europe, they face the same opportunities as any domestic firm. In this regard, we would say that the initial investment has given the foreign firm a "within-country" option to expand in the domestic market.[4] It would be especially attractive, as Yamawaki notes, for firms in slow-growing industries to be attracted to fast-growing ones. However, this trait does not seem especially Japanese. To the contrary, one of the most robust findings on entry is the positive influence of industry growth.[5] We should expect, then, that Japanese firms with established positions in the region, like any domestic firm, to be drawn to growing industries. And in turn, these industries should reflect the technological advantages of the host country, as would appear to be the case for non-electrical machinery in Europe (or should we say Germany?).

It is instructive that similar industries (i.e. chemicals and non-ferrous) in the U.S. and Europe should also show greater probabilities to expand into other industries. Certain industries appear to set up assets in foreign countries which serve as platforms into other industries. What is different is that the target of expansion differs among the two regions, because, we suspect, the opportunities for entry and growth are different across industries in Europe and the U.S.

There remains to consider, however, the second question

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[4]This notion of the sequential nature of foreign direct investment as a growth option is discussed in Kogut, 1983, with a formalization given in Kogut and Kulatilaka, forthcoming.

[5]See the review in Kogut and Chang (1991).

of across-regional coordination which Yamawaki posed. A way to think about this element consistent with the above story is that the establishment of subsidiaries in different countries provide a set of "across-country" options. These options could be to coordinate manufacturing production across countries or to transfer new practices and innovations across borders.

The data which Yamawaki has collected do not appear to be likely to cast much light on this question, outside one important pattern. Certain industries, such as electrical and increasingly auto production, are more characterized by parents owning assets in both regions. This pattern raises the puzzle why should common ownership matter. As suggested above, one answer is that it does not; it only reflects that investment is being pushed out from the home market into multiple regions of the world. The answer we suggest is that joint ownership does matter, because across-border coordination benefits a firm that has established subsidiaries in both regions.

Of course, amid this speculation is a more prosaic interpretation of the industrial pattern: government-imposed barriers to trade have led to tariff (or anti-dumping) hopping investment. The study by Chang and myself clearly found voluntary export restraints to promote Japanese investment in the United States. Yamawaki suggests a similar process is at work for Europe. This effect of government commercial policy on encouraging investment has been long recognized in histori-

cal and empirical studies.[6] To understand this effect in the context of regional, however, requires a more thorough understanding of the similarity and differences in American and European commercial policies. What we can say is that commercial policy regarding exports unquestionably influences direct investment patterns. The interesting issue is whether policymakers know this, and would this knowledge affect their evaluation of the desireability of restraints on trade.

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[6]See the summary given in Caves, 1982.