

Direct Foreign Investment and Its Economic Effects: A Review

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The Economic Planning Board of the Republic of Korea and the Korea Industrial Bank recently carried out a comprehensive study of direct foreign investment in Korea. The study took the form of surveying 785 foreign subsidiaries and joint-venture firms (henceforth foreign firms)¹ and the results were published in December 1979 under the title of *Direct Foreign Investment and Its Economic Effects*². This report contains much needed information on direct foreign investment in Korea and is an excellent source of data for future research in this area.

An important feature of the report is its diagnosis of problems associated with direct foreign investment in Korea and its recommendations for dealing with these problems. Since the recommendations, if adopted as policies, will have important implications for the future of direct foreign investment in Korea and consequently for the Korean economy at large, it will be useful to discuss these recommendations as well as the problems that they are supposed to solve. It will be argued here that many of the aspects identified in the report as "problems" are not in fact problems and that many of the recommendations are, therefore, unnecessary.

In section I six "problems" associated with direct foreign investment in Korea are analyzed and it is argued that many of them are not in fact problems. In Section II the seven recommendations pro-

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1 The number of firms that returned the questionnaire is 578, 75.5% of the total number of foreign firms in operation in Korea as of the end of 1978.

2 The Korean title of the report is *Wai-Gook-In Jik-Jup-Too-Ja E Sil-Tae Wa Kyung-Jae-Juk Hyo-Kwa Boon-Suk E Kwan-Han Yun-Koo*. A direct translation of this title is *The Research on the Factual State of Direct Foreign Investment and the Analysis of its Economic Effects*.

posed in the report are evaluated in the light of the analysis in section I. Section III contains some concluding remarks.

I. "Problems" Associated with Direct Foreign Investment in Korea

(1). *"Dependency" on Japan and the United States*

Out of 578 projects and \$806 million invested in Korea from 1962 through 1978, 436 projects and \$467 million are from Japan (75% and 58%, respectively) and 86 projects and \$175 million from the U.S. (15% and 22%, respectively). These two countries together account for 90% of the total projects and 80% of the total amount invested in Korea. *Because of the predominance of Japanese and U.S. direct investment the Korean economy is, the report argues, overly influenced by changes and fluctuations in the economies of these two countries.*

Even though Japan and the U.S., together are the major source of direct foreign investment in Korea, this predominant position does not mean that they exert a dominant influence on the Korean economy. As reported by Lee (1979), Japanese and U.S. direct investment in Korea accounted for only 2% of her capital formation during the 1962-1974 period. Even when \$220 million invested by these countries from 1975 through 1978 is added, the stock of capital accumulated through direct foreign investment cannot be more than a minuscule fraction of Korea's total capital stock in 1978.

In contrast with this meager contribution to capital formation, foreign firms accounted for a relatively large share of manufactured outputs (17.8% in 1978) and a larger share of exports of manufactured outputs (38% in 1978). Do the economies of Japan and the U.S. have a dominant influence on the Korean economy because their investment accounts for a large share of manufactured exports from Korea? For an analytical purpose, this question can be divided into two subquestions. The first is whether the Korean exports accounted for by Japanese and U.S. investment are destined for markets in these countries or markets in a third-country. If they are for the latter, they obviously cannot be influenced, not at least directly, by changes and fluctuations in the economies of Japan and the U.S. The second is whether, because of their investment position, the supply of raw materials and intermediate products crucial to the Korean economy can be disrupted.

As pointed out in Lee (1979) and also shown in the report, U.S. investment in Korea is largely for the Korean domestic market. Given this market-orientation, the U.S. demand for Korean exports cannot be said to be much influenced by its investment position in Korea. Japanese direct investment in Korea is more export-oriented than U.S. direct investment. Not all of these exports are, however for the Japanese market. As mentioned by Ozawa (1972), one of the reasons for Japanese overseas investment was to circumvent restrictive measures taken by the U.S. and European countries against Japanese exports. In other words, some of the outputs of Japanese firms in Korea are exported to countries other than Japan. Even though no figures exist on the magnitude of these exports, it can be concluded that the exports accounted for by Japanese direct investment are not all destined for markets in Japan. The 38% figure for the share of exports accounted for by direct foreign investment in Korea in 1978 therefore overstates the influence of the Japanese and U.S. economies on the Korean economy.

The Korean economy could be disrupted if foreign firms holding a dominant position in a "strategically" important industry should not receive the supply of raw materials and intermediate products due to some events in the investing countries. The industry in Korea that may fit this condition is the petroleum industry where 83.2% of the total output in 1978 was produced by a few, large foreign firms.

In other industries the output-share accounted for by foreign firms ranged from 5.3% to 21.3% in 1978 with an average of 17.8% for all the manufacturing industries. What these figures indicate is the fact that the Japanese and U.S. predominance in overall direct foreign investment in Korea is not the same as their dominance of every industry in Korea.

Two additional points are made in the report with regard to the Japanese and U.S. predominance in direct foreign investment. *The first is the competition between foreign and indigenous firms in the export market. The second is the meagerness of technologies introduced by foreign firms.* With respect to this second point the report further questions the worth of technology imported from Japan when it is associated with small-scale Japanese investment.

Most of the Japanese firms in Korea are there to take advantage of Korea's inexpensive labor, and consequently, their products compete in the world market with those produced by indigenous firms. Foreign firms, the report claims, have an advantage over in-

digenous firms in the export market because of the higher quality of their products, better-known brand-names, and their general goodwill.

This "problem" of competition is, however, a natural consequence of direct foreign investment as indigenous firms develop and grow, in part, as a result of external benefits from direct foreign investment. Given the capabilities that indigenous firms now have for producing and exporting many labor-intensive commodities, Korea should probably stop offering tax-concessions to attract direct foreign investment into these industries.

As noted above, the report argues that foreign firms have introduced only a meager number of technologies and that especially those introduced by small Japanese investors may not be beneficial to Korea. Clearly this argument fails to take note of the fact that the host country can gain from the introduction of managerial and marketing know-how as well as production technology. Only the latter, however, is what is recorded officially as new technology introduced by foreign firms. The report's doubting the worth of technology associated with small foreign firms reflects the common fallacy of regarding large-scale, capital-intensive technology as the most desirable one. As argued by Kojima in his writings (1977 and 1978), small-scale Japanese direct investment transfers to a labor-abundant host country labor-intensive production technology and managerial know-how for running small-scale enterprises. These may be only for producing prosaic, traditional commodities. Even with these, however, Korea could benefit since there is still room for improving the quality of these commodities as well as for reducing the cost of their production. Furthermore, in a country that seems to be dominated by several large corporations there is a lot to be said in favor of fostering the growth of many small-scale enterprises. It is hard to fault small-scale Japanese direct investment when what Korea needs is a healthy growth of numerous small-scale enterprises.

(2). Small Size of Investment

The second "Problem" associated with direct foreign investment in Korea is the small size of most of the projects. According to the report, 253 projects, 44% of the total, invested no more than \$200,000 per project, and 459 projects, 79%, invested less than \$1 million per project. The fact is that most of the direct investment in Korea (in terms of the number of projects) is by small investors and only a fraction by large multinational firms. It is ironic that

while the report regards the predominance of Japan and the U.S. in direct foreign investment in Korea as a problem it should at the same time regard the small size of individual projects as a problem. It would appear that to have numerous small foreign firms is to avoid some of the possible negative effects of direct foreign investment when it is by large multinational firms. Since these small foreign firms bring about added competition in the industries with very little danger of oligopolistic collusion, their entries cannot but have favorable effects through enhanced competition and X-efficiency on the part of the indigenous firms.

The report points out that even in the heavy machinery and chemical industries the size of foreign investment is smaller than the average for the industries in Korea. This relatively small size of foreign investment says very little about efficiency or inefficiency of the foreign firms in these industries. If in fact the size of these firms is smaller than the optimum size, the small size is probably due to the fact that they are in industries protected from import competition. Without the protection they would not have come to Korea and, even if they did, they would not have survived. The smallness should be regarded therefore as a cost of trying to nurture an industry with a protected domestic market.

(3). High Concentration in Textile, Clothing, Electric and Electronic Industries

It is argued that too much of direct foreign investment is concentrated in the textile, clothing, electric, and electronic industries. *Value-added in these industries is less than that in the machinery and chemical industries, and exports from foreign firms compete with those from indigenous firms in the same industries.* The report points out that these characteristics do not meet the criteria established in the Foreign Capital Inducement Act and used by the Economic Planning Board (EPB) in approving applications for direct foreign investment. What must be recognized before the effectiveness of the Act and the EPB is evaluated is the fact that during the early phase of the 1962-1978 period only two economic factors were in existence in Korea to attract foreign investment: the abundance of inexpensive labor and protected markets for certain commodities. Given these two factors, it is not surprising that Japanese direct investment was in industries such as textile, clothing, electric and electronics that are labor-intensive and that U.S. direct investment in industries that produce commodities for a domestic market. Also it is not surprising that in-

indigenous firms developed in the same labor-intensive industries and became successful in exporting their products. If direct foreign investment has, as argued by its proponents, the spillover effect of transferring production technology, management and marketing know-how, this "catching-up" by indigenous firms is exactly what to be expected.

As to the low value-added in these industries there must be a realistic understanding of whether direct foreign investment could have been enticed into high value-added industries without being offered excessive tax-concessions or protected markets. Did Korea have technological infrastructure for this kind of investment? Would it have come to Korea without being given a protected market? If protection was necessary, would the social benefit have exceeded the social cost? Nay is the likely answer to all of these questions for Korea of the early phase of the 1962-1978 period. Thus, instead of regarding Korea's experience as a failure for not having attracted direct foreign investment that satisfied all the criteria specified in the Act, it could be regarded as a success, given the basic conditions prevailed in Korea then. Ironically this success could be deemed partially due to administrative laxity in carrying out the Act.

(4). Domestic Market Orientation of Direct Foreign Investment

According to the report, *the share of exports in total sales by foreign firms is less than the export-share for the entire country (excluding the exports from the free trade zone)*. Even the export-share of foreign firms in the textile, electric and electronic industries was not much different from that for the country as a whole. The report, consequently, doubts the veracity of the export-share originally declared in application for approval of direct foreign investment.

Obviously this divergence of the actual from the declared export-share could be regarded as a problem from a legalistic or administrative point of view. Is it, however, a problem in terms of the basic objectives for having direct foreign investment in Korea? If the purpose of requiring a large export-share was to protect indigenous firms, this divergence had a deleterious effect on these firms. In this case one should, however question whether protecting indigenous firms with such a measure is the best thing to do. If the purpose was to improve the balance of payments through export promotion, the fact that foreign firms did not export as much as they declared they would but sold the output on the domestic

market does not necessarily constitute a problem. What they may have done is to meet the demand for commodities that would otherwise have been imported. In terms of the effect on the balance of payments there is no difference between foreign exchange earned and foreign exchange saved. The point being made here is that a divergence of the actual from the declared export-share is not *ipso facto* a problem from a substantive point of view. It is only a fact that needs to be investigated for its cause and effect on the economy.

(5). *Danger of Management Control*

As reported, 94 projects have 100% foreign ownership and are thus controlled by foreign investors. When the projects that have at least 50% but less than 100% foreign ownership are added, 49% of the total number of projects and 78% of the total amount invested in Korea are controlled by foreign investors. The report is concerned with possible economic dominance by foreign investors. For economic dominance, however, what matters is not the percentage of the projects that are controlled by foreign investors but the importance of these projects in each industry and the importance of the industry that could be dominated by foreign investors for the entire economy. If we look at the sales figures for 1978, foreign firms accounted for less than 20% of the total sales of the manufacturing industries. Out of the total eight industries in manufacturing only two industries had higher percentages than the average for manufacturing as a whole: 44.2% for chemical, petroleum, and plastic, and 24% for machinery and equipment.³ In other industries, less than 20% of the total sales are produced by foreign firms and certainly even less by foreign firms controlled by foreign investors. It is difficult to judge whether 20% is large enough to give foreign firms a significant influence in the market. But it seems hardly large enough to give them dominance in the market.

In petroleum-refining Korea's dependence on foreign oil companies seems to be an undisputed fact. Whether these companies have exploited their oligopolistic position in Korea or not is an area that may require serious investigation.

(6). *Use of Locally produced materials*

The report points out that *there is no regulation regarding the*

³ In petroleum-refining foreign firms accounted for 90.4% and in electric machinery 40.9%.

use of locally produced materials and that even though the ratio of imported to total raw materials used by foreign firms decreased from 87% in 1974 to 72% in 1978, their share of imported raw materials in the total for the country increased 43% to 50% during the same period. As these percentages are calculated in term of money value, they do not distinguish changes due to price-changes from those due to quantity-changes. Foreign firms' share of imported raw materials could have increased because they are heavy users of materials such as chemicals and petroleum whose world prices increased relatively more during the period. The share of imported raw materials used by indigenous firms may thus have decreased not because they substituted local for imported materials but because the prices of materials they used did not rise as much as those used by foreign firms. If the prices of imported raw materials are assumed to have risen more than the prices of local materials during the 1974-78 period, then the drop from 87% to 72% in the ratio of imported to the total raw materials (in money value) used by foreign firms indicates the real substitution of local for imported raw materials.

II. Recommendations for Policies on Direct Foreign Investment

There are seven policy-recommendations for direct foreign investment in the report, and these can be evaluated in the light of the discussion in the preceding section.

(1). *Diversification of the Sources of Direct Foreign Investment*

This recommendation to diversify the sources of direct foreign investment follows from the report's identification of the concentration of the sources of direct foreign investment in Japan and the United States as a problem. *Since this is not in fact a problem, any costly actions should not be undertaken to diversify the sources of direct foreign investment.* The report points to West Germany as a prospective source of direct foreign investment. But it also notes that three most important motives for West Germany for making overseas investment are (1) to secure the market, (2) to economize on production and transportation costs, and (3) to avoid trade-barriers such as tariffs and quotas. These motives indicate that West German direct foreign investment is for meeting the host country's demand for German products and not for producing commodities for West German and/or a third-country market. Since one reason for diversification is to diversify the export

market, it is difficult to see how West German direct foreign investment would help to accomplish this objective.

Give the market-orientation of Japanese and U.S. direct investment in Korea, the only way to substantially reduce whatever vulnerability the Korean economy has to changes and fluctuations in the economies of the investing countries is, therefore, to reduce Japanese investment. To do so however would cost Korea in terms of foregone exports to Japan.

(2,3). *Priority-System in Attracting Direct Foreign Investment*⁴

The report recommends that in approving applications for direct investment priorities should be given to investment projects in the heavy machinery and chemical industries, those promoting exports and having strongly favorable effects on the balance of payments, those using a relatively large quantity of local materials, those with extended linkages, and those that would invest in important industries that indigenous firms had neglected. The report then recommends a system of differential tax-concessions *pari passu* with these effects.

The problem with this recommendation is not the general principle underlying the recommendation but the practicality of the recommendation. Since there are several criteria for determining the priority of an investment project, there is the problem of assigning weights to various criteria in order to rank prospective projects. Even though weights can be determined somehow, little is known about a project's contribution in terms of the criteria. If each prospective project is to be investigated for its contribution, it will be at an enormous cost even if such an investigation is possible. What may be recommended is therefore to set up a *priority-system on an industry-by-industry basis*. A study should be able to be made for each industry on the extent and kind of contribution that direct foreign investment in each industry can make to the Korean economy. With such an industry-by-industry priority-system it will be then only a matter of deciding to which industry a prospective investment project belongs.

(4). *Equity-Share of Foreign Investors*

The report recommends that the equity-share of foreign investors should be in general no larger than 49% and that even in

⁴ Since recommendations (2) and (3) are very closely related, they are dealt with together here.

exceptional cases the eventual transfer of majority ownership should be clearly specified. As discussed in section I-(5), except in petroleum-refining, foreign control does not seem to be significant and deleterious to the Korean economy. Obviously, if foreign control can be eliminated from foreign firms, there will not be the slightest danger of foreign investors using their control at the expense of the Korean economy. What this recommendation seems to fail to take into account is that before foreign firms can be purged of foreign control they must be first located in the country. For certain types of direct foreign investment management control may not be an important factor in the decision to invest in Korea. For others, however, foreign investors want to maintain management control. These are investment projects that are based on superior technology, management, and marketing skill. For these projects the control of management by the investors is *sine qua non* for their long-run survival. Will they then invest in Korea where they are required to be a minority-share holder or to become one eventually? The answer is most likely no. *Since except in petroleum-refining there is very little danger of foreign control being deleterious to the Korean economy, requiring a minority-ownership to foreign investors seems like killing the goose that lays the golden egg.*

The case of petroleum-refining is, however, different because of foreign firms' dominance in the industry and the importance of petroleum in the modern industrial economy. What has to be done in this industry is to foster the growth of indigenous firms. This policy will require the acquisition of various technologies of the petroleum industry, which could be a slow and costly process. But, then, it should be recognized that the problem of "dependency" on foreign firms is not something that can be solved with a fiat by the government of the host country. It can be truly solved only when indigenous firms are capable of doing what the foreign firms have been doing.

(5). *Promotion of Technology*

In recognition of rising wage rates and competition from China, the report recommends the attraction of direct foreign investment that is technology- and capital-intensive. The report laments the fact that through 1978 the number of technologies introduced through direct foreign investment was 221, which was only 12% of the total that Korea acquired during the same period. It should be pointed out, however, that the 12% figure

underestimates the extent of technology introduced by foreign firms, as the role of direct foreign investment in the transfer of technology is not confined to formal licensing-agreements on production technology. There is the additional transfer of technology through the training of indigenous labor and through the linkage effect.

The recommendation for capital- and technology-intensive direct foreign investment is in the right direction as indigenous firms are now capable of producing and exporting traditional commodities that are labor-intensive. Along with this recommendation one should, however, point out an obvious truism that for the transfer of technology to occur through direct foreign investment there must be capability and willingness to receive technology. Only then direct foreign investment can be relied on as an instrument for transferring technology.

(6). *Use of Locally Produced Materials*

The report recommends the extent of the use of locally produced materials as one of the criteria for a priority-system. It also recommends requiring the firms that still rely heavily on imported raw materials to abide by a definite time-schedule for substituting imported for locally produced materials. Obviously, if this requirement does not impose any cost to the Korean economy, it cannot be faulted for its purpose of nurturing infant industries through the linkage effect. It is very doubtful, however, that it has no social cost. There are two possible reasons why a foreign firm does not purchase inputs from a local supplier: (a) it costs more to use locally produced inputs because they are more expensive or they are of lower quality, and (b) the foreign investor can make more after-tax profits by manipulating transfer-prices for materials purchased from its home office. In either case, the requirement to use locally produced materials will reduce its *ex ante* profits from investment in Korea. Then tax-concessions may have to be offered to offset the deterrent effect of the requirement. *In that case the cost of nurturing infant industries with the requirement to use locally produced materials will be in fact borne not by the foreign investors but by the Korean taxpayers. If these industries should be expanded for reasons of external benefits, it may be better to subsidize them directly.*

(7). *More Effective Administration of the Act*

The report deplores the rather lax administration of the rules

and regulations specified in the Foreign Capital Inducement Act. It may be argued that when rules and regulations are inappropriate, it is better to have them ineffectually administered. The first-best solution is obviously to establish appropriate rules and regulations and have them effectively administered.

III. Concluding Remarks

This review of the report does no justice to its usefulness as a depository of much needed information on direct foreign investment in Korea. Its usefulness will certainly last until further accumulation of data warrants another study of the kind. The objective of this review is limited to the appraisal of the "problems" mentioned in the report and its recommendations. Many of the "problems" are not in fact problems, and this misidentification is primarily due to the lack of an explicit economic analysis in the report. Only with an economic analysis can we find out which effects to expect from direct foreign investment and we can then compare the actual with the predicted results. Also, only when we know what can be expected theoretically from direct foreign investment in Korea, we can try to control the extent and type of direct foreign investment to accomplish national objectives. In spite of this weakness this report will remain a valuable source of information on direct foreign investment in Korea. The present review will have accomplished its objective if it leads to a better understanding of the effects of direct foreign investment in Korea and the establishment of policies that are efficient as well as equitable both to Korea and investing countries.

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