TOWARD KOREAN UNIFICATION: A POLICY PROPOSAL FOR INVESTMENT IN NORTH KOREA

by

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Abstract

South Korea became a net-provider of foreign direct investment in the late 1980s, and is now emerging as a major source of foreign direct investment in ASEAN and China. In general, the economic gains that the host country realizes from foreign direct investment are not a factor that the home country should take into account in deciding its policy on outward investment. The case of South Korea is, however, an exception to this general principle because of the possibility of the eventual unification of two Koreas. Given that the unification cost borne by South Korea will decrease as the North Korean economy improves, the South Korean government should actively encourage South Korean investment in North Korea by offering appropriate incentives. The rational for this policy is that the beneficial effect of investment on the North Korean economy is not a factor taken into account by private investors. Policy measures in this direction include the provision of a corrective subsidy for North Korea bound investment.

I. Unification of two Koreas, whenever it may eventually take place, will be a costly process if the experience of German unification is any indication of what it would entail. Unification of two Germanies has cost the unified country dearly: between 1989 and 1992 East Germany's manufacturing output decreased by one-third, and its GDP and employment by one-half. [1] And, this does not even include the billions of Deutsche marks transferred from west to east.

Any structural change of the magnitude that East Germany has gone through, whether it is a change from a Soviet-type centrally planned to a market economy or just a structural change in a market economy, is costly. In fact, the post-World War II conversion of a wartime to a peace-time economy in the United States brought about a contraction in output and employment no less severe in magnitude than that suffered by East Germany. Its industrial production decreased by roughly 40 percent between the fourth quarter of 1944 and the first quarter of 1946, and employment fell by 30 percent between the first quarter of 1944 and the fourth quarter of 1945. [2]

Unification of two Koreas will be no exception and the cost of unification will be enormous. Although the cost of Korean unification is not clearly specified, it includes at least the government expenditure necessary to improve the North Korean economy closer to the level of the South Korean

[1] See Schmidt and Sadner(1993), and Siebert(1993).
[2] See Schatz and Schmidt(1992).

economy when unification takes place. There have been many attempts to estimate the cost of unification, and the estimates range widely from 200 to 1320 billion (1990 constant) dollars, [3] depending upon the year of unification, assumptions on the two economies as well as the definition of the unification cost. It is, however, generally believed that, if two Koreas are unified as quickly as two Germanies were, Korean unification will be more costly to the South Korean economy than German unification was to the West German economy in terms of the ratio of the unification cost to the annual national income. There are also good reasons to believe that it will take longer for the South Korean economy to recover from the burden of the unification cost than the West German economy. It is basically due to the difference in the extent that North Korea and East Germany have been exposed to market economies. [4]

South Korea may reduce the burden of the unification cost by preparing for the eventuality of unification. What this preparation ought to be, however, depends on how unification will actually take place. As for Korean unification, one may say that the way how it will happen is no less unpredictable than the time when it may happen. Two alternative scenarios have been extensively discussed in South Korea. [5]

The first scenario is a gradual process as outlined in "To Build a National

[3] See, for example, Chun, H.T.(1995) that compares eight different estimates of the unification cost.
[4] See, for example, Koh, I.D. et al.(1993).
[5] See Lee, S.H.(1992).

Community through the Korean Commonwealth: A Blueprint for Korean Unification" (National Unification Board, Seoul, 1989). It envisions the adoption by two Koreas a National Community Charter by which both sides would recognize each other and seek coexistence, irrespective of political differences. It would be then followed by the creation of a Korean Commonwealth. This would not be a union of states or a federal state but would be rather similar to the European Community. In this commonwealth both governments would remain sovereign states. The final stage would be reached when a Unified Democratic Republic is established based upon general elections. In this gradual process of political unification, the two economies will be also gradually assimilated, and hence, neither Korea will undergo severe economic setback after the final stage is completed.

The second scenario is the absorption of North Korea by South Korea, as happened in Germany, following the collapse of the former as a result of political instability and/or economic failure. Unification would then require the transformation of the centrally planned, socialist economy in the north into a market economy in a relatively short period of time. This simultaneous process of unification and transition will be extremely costly as suggested by the magnitude of the estimated unification cost in many studies. According to an Australian study on Korean unification, the cost will be so high that a unified Korea will be unable to finance it, if unification is to take place by the year 2000. [6] It must be admitted, however, that

[6] See Australian National Korean Studies Center(1992).

whichever scenario may come true Korea is fortunate to have observed the German experience and thus able to learn from it.

II. There are basically two groups of issues that need to be addressed in preparing for eventual unification and thus reducing its cost. The first includes the issues that will have to be dealt with after political unification takes place. The German experience shows that these issues will include the method of privatizing state- and collective-owned properties, the choice of the conversion rate between the South Korean and the North Korean wons, and the policy relating to wage determination in North Korea. [7] In addition, there will be the problem of introducing market institutions into a formerly socialist, planned economy in the north. [8]

The second group of issues relates to measures that may be undertaken before unification, thus possibly affecting the growth of the North Korean economy and the cost of unification. Since the mid-1980s North Korea has carried out various reforms to correct the problems typical of centrally planned, socialist economies such as the soft budget constraint and ineffective worker incentive provisions. These reforms have included a new emphasis on financial accountability and relative autonomy of state-owned enterprises and the promotion of foreign direct investment and the non-state sector in consumer goods and service industries. These reforms are, however, unlikely to succeed as most of the problems in North Korea

[7] See Lee, C.H.(1994b).
[8] See Winiecki(1992).

have arisen from the contradiction inherent to the centrally planned, socialist economy and cannot be thus corrected without fundamental changes in the system of property ownership and incentive structure. [9]

To this group also belong measures that may be undertaken by South Korea. Clearly, trade and investment between two Koreas will have various effects on the North Korean economy and, consequently, South Korean policies relating to trade with and investment in North Korea will have a bearing on the cost of eventual unification. It seems, although not apparent, that the likelihood of Korean unification will increase as a larger part of the North Korean economy becomes privatized or the North Korean economy improves. There is, however, no doubt that the South Korean economy will suffer a smaller unification cost when unified with an economy of a structure and performance level that are closer to those of South Korea. Whether unification takes place gradually in three stages or suddenly as in the German case, the higher the income of North Koreans at the time of unification the smaller will be the pressure of migration from north to south and the smaller the necessary transfer of income from south to north. Also the smaller will be the structural changes required of the North Korean economy. That is, the burden of the unification cost on the South Korean economy will be inversely related to the level of the North Korean GNP, and, therefore, it is in the interest of South Korea to assist in the development of the North Korean economy.

[9] See Kang and Lee(1992).

III. Recently, the government of South Korea has undertaken a set of measures to boost inter-Korean economic cooperation. These include permitting eligible South Korean companies, banks and business organizations to establish representative offices in North Korea and issuing visiting permits to businessmen for such purposes. In fact, executives from large South Korean companies such as Lucky Goldstar, Samsung, Hyundai, and Ssangyong have received from the South Korean government permits to visit North Korea. [10] Given that North Korea is interested in establishing "zones of free economy and trade," their visit is likely to result in some South Korean investment in North Korea. [11]

There is little doubt that such investment will benefit the two economies on the Korean peninsula, and will eventually have a favorable effect on the cost of Korean unification. We argue that, since, as will be shown later, direct investment by South Korean firms in North Korea will have a positive effect on North Korea's economic growth and to the extent that this effect lowers the unification cost, the South Korean government should take this effect into account in formulating its policy regarding South Korea's outbound investment.

The South Korean government's endeavor to facilitate economic interaction with North Korea is well reflected in the charter of South-North Cooperative Fund, which was finally established in 1991 after a series of

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[10] See *KOREAupdate*, January 9, 1995.
[11] See Lee, P.S.(1994).

registrations of new laws and ordinances. The fund had accumulated 96 billion won until 1993, and the South Korean government announced that the fund would amount to about 1000 billion won by the end of 1995. Among other things, the proposed uses of the fund include loans for financing investment or business in North Korea and compensation for the loss from such activity; nevertheless, not a single won in the fund was requested or used for these purposes by the end of 1993. [12]

The South Korean government will probably take actions to make the fund more accessible along with other measures to loosen the regulations on travels and businesses in North Korea. We contend, however, that the South Korean government should take a more active measure and promote investment in North Korea. The purpose of such a pro-active measure is to divert to North Korea the South Korean investment that would otherwise go to other developing countries in the world.

Government officials and scholars in South Korea in fact have discussed whether and how much the South Korean government should help private firms to do business with North Korea. Although the issues are still in the air, there seems no dispute on the beneficial potential of investment in North Korea with respect to eventual Korean unification. In fact, the decisions are split only with regard to whether to "abide by the efficiency principle of economics" [13] that the private firms should be solely responsible for the

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[12] See Jo, D.H.(1993).

[13] See Jo, D.H.(1993).

benefit and cost of doing business with North Korea while the government plays a minimum role in order not to cause distortions and efficiency losses. We argue, however, that there is a good reason for government intervention in the case of South Korean investment in North Korea as private firms' decisions will necessarily lead to under-investment in North Korea and hence a sub-optimal resource allocation.

IV. For some years a number of South Korean companies have invested in developing countries such as the Southeast Asian countries and China. For instance, in Southeast Asia alone they invested more than $714 million dollars between 1968 and 1990. Much of the investment in that region was carried out by companies in the footwear, apparel, and customer electronics industries. These are some of the industries in which South Korea has been losing its comparative advantage, and the Korean firms took advantage of the abundant supply of cheap but skilled labor and low-cost industrial estates that are available in Southeast Asia. [14]

With further development of its economy South Korea has become a net-provider of foreign direct investment in the late 1980s, and, it is now emerging as a major source of foreign direct investment in many countries. For instance, in 1994 alone, the Daewoo Group is reported to have invested $1.2 billion in setting up automobile plants in China, Uzbekistan, Romania, India, and Vietnam, and the group's total foreign investment reportedly

[14] See Lee and Lee(1992) and Lee, C.H.(1994a).

amounted to $2.5 billion. The Hyundai Group likewise budgeted $600 million for overseas investment. [15] There are, of course, other firms in South Korea not mentioned above that invested abroad, and if such investment is included, the total amount of investment from South Korea to the rest of the world would annually amount to several billion dollars. If a fraction of this sum is diverted to North Korea, it will be large enough to make a significant impact on the North Korean economy.

V. Theoretic analyses of the benefits and costs of foreign direct investment date back to MacDougall(1960) [16] who suggested the beneficial spillover effects introduced by foreign capital may be substantial. The literature has been expanding most rapidly in recent years. Recently, Borensztein et al.(1995) obtained an empirical finding that foreign direct investment has a positive effect on the growth of the host developing economies.

It is generally believed that foreign direct investment benefits the host country by increasing employment, income, and export earnings. Furthermore, investment from more developed to less developed countries enhances the efficiency of resource allocation and the growth potential of host countries by transferring advanced technologies and managerial know-how. Also, especially investment made by so-called mobile-exporters, which refer to the foreign firms of which the output is mostly destined

[15] See *KOREAupdate*, January, 1995.
[16] See also Kemp(1962a) & (1962b).

for export, allows local firms' access to the marketing channels from the industrialized countries. [17]

The gains from foreign investment to the host country are generally a matter of no concern to the individual investing company and thus do not enter into its decision calculus. That is, the company will not take those gains into account in deciding whether to invest abroad or not and, if so, where. Furthermore, the gains realized by the host country bring little beneficial effect to the investing company's home country except perhaps through increased trade between the two. Consequently, the economic gains that the host country realizes from foreign direct investment are not, in general, a factor that the home country should take into account in deciding its policy on outward investment. The case of South Korea, however, is an exception to this general principle because of the possibility of the eventual unification of two Koreas. Given this possibility, the South Korean government should take into account of the beneficial effect of South Korean investment on the North Korean economy and actively encourage such investment by offering appropriate incentives.

VI. If South Korean firms invest in North Korea instead of investing in some developing countries, it will be North Korea that will capture the beneficial effects of investment on the host country. Given such beneficial effects of investment in North Korea on the North Korean economy and to

[17] Wells(1993) notes that this type of spillover may be the most important benefit to some of Southeast Asian countries such as Indonesia.

the extent that an improvement in the North Korean economy reduces the cost of eventual unification, [18] economic gains to North Korea should be considered in reckoning the social benefit to South Korea of investment in North Korea. However, such gains will not be considered by South Korean firms in their calculation of private benefit. The social benefit of investment in North Korea will thus exceed its private benefit, and, consequently, investment decision made by private firms will necessarily lead to under-investment in North Korea. In other words, the level of investment in North Korea will be lower than desirable from the perspective of South Korean people who will bear the burden of the unification cost. This situation per se offers a rationale for the government intervention on the ground of efficiency-enhancing, and economic principles suggest that appropriate government intervention such as a subsidy for investment in North Korea can remedy the situation. In this light, we propose that the South Korean government should undertake pro-active measures to increase investment towards the efficient or socially-desirable level. We also note that the government promotion of investment in North Korea will not only bring forth the efficiency gains of which the realization is contingent upon the occurrence of Korean unification, but also probably increase the likelihood of the occurrence.

It is worth noting that private firms will under-invest in North Korea

[18] Lee, Y.S.(1995) suggests that trade and cooperative investment may promote the harmonization of law and regulation as well as mutual trust between the two Koreas and may thus reduce the cost of unification.

not because they do not anticipate the eventual unification but because they take into account of its consequence partially. As a matter of fact, in the survey conducted by the National Unification Board in 1993, [19] 35.8 percent of the private firms that responded to the question on the reasons for economic interaction with North Korea indicated taking advantage of cheap labor, 31.7 percent opening up a new market and establishing a business base for the future use, and 18.7 percent making efforts for sooner unification of two Koreas as their primary reason. The result evidently shows that private firms are also interested in the potential gains contingent upon an eventual unification in their investment decisions. It is, therefore, likely that private investment in North Korea will respond sensitively to the incentive measures that the South Korean government will provide.

The South Korean government has several options in promoting investment in North Korea. First, business with North Korea will be further facilitated if visiting permits are more liberally issued and other bureaucratic barriers are lifted. Secondly, tax incentives may be given to the income earned from investment in North Korea. According to the revised tax codes that were put in effect in 1996, [20] South Korean firms may either take a tax credit against the tax payment made in foreign countries or deduct such payment from the domestic tax base. While this provision avoids double-taxation, South Korean investment would be insensitive no

[19] The survey results are quoted from Jo, D.H.(1993).
[20] See *1995 Revised Tax Codes*, National Tax Administration of Korea, pp.197-198.

matter what tax incentives may be provided by the North Korean government. [21] Hence, tax codes may have to be rewritten concerning the income repatriated from North Korea. Thirdly, the South Korean government may ease the problem of lack of information and/or lessen the uncertainty of investing in North Korea. Most of all, it is well known that the risk premium is an important component of the cost of capital in a risky investment project. [22] The risk-pooling or risk-sharing [23] will substantially encourage investment in North Korea. As mentioned earlier, one of the proposed uses of the North-South Cooperative Fund is the compensation of losses from business with North Korea. It is possible that North Korea will take advantage of the existence of such fund in the short-run; however, it will not be in its interest to continue doing so since it will attract little foreign investment once its opportunistic behavior becomes publicized. At any rate, it is questionable whether the South Korean government should provide new insurance designed for investment in North Korea.

The result from the survey quoted earlier alludes to the private firms' information problem as well as their concern about uncertainty. [24] In

[21] It is implicitly assumed that the investment income is always subject to a lower tax rate in North Korea than in South Korea, which is currently true. See, for example, Jo and Choi(1994).

[22] See, for example, Bernheim and Shoven(1989).

[23] Lee, Y.S.(1995) proposes joint investment in North Korea by South Korean, U.S., and Japanese firms as a way of restricting the unpredictable behavior of North Korea and thus reducing the risk of investing there. He does not, however, specify how such joint investment will take place and what role the South Korean government should play in promoting it.

[24] The result here is quoted from Yeon et al.(1993a).

response to the question on the difficulties of investing in North Korea, 48.9 percent of the respondents indicated political uncertainty and bad reputation on foreign trade, 34.6 percent indicated non-existence of a market economy and the lack of infra-structure capital, and 13.7 percent indicated the lack of information on investment opportunities in North Korea. North Korea is indeed one of the few countries about which the South Korean government knows better than any private firm in almost every aspects, and private firms may greatly benefit from the information provided by the South Korean government.

VII. The last measure proposed in this paper is the use of a subsidy for investment in North Korea. The principle of such a subsidy is exactly that of a standard corrective subsidy in the case of positive externality. The optimal amount of the subsidy will not be known until the magnitude of marginal externality in efficient allocation is known. For the same reason, the expected value of the beneficial effect of investment in North Korea on the unification cost should be figured out beforehand. As suggested earlier, even the estimation of the unification cost alone is a challenging task. Putting this task aside, this paper suggests a simple theoretical treatment of the unification cost.

First, let i denote the amount of South Korean investment in a foreign country, and let y_S and y_N respectively denote per capita income of South Korea and that of North Korea. Due to the beneficial effect of investment in North Korea on both Koreas, both y_S and y_N are positively related with i so that

$$y_N' \equiv \frac{dy_N}{di} > 0, \quad \text{and} \quad y_S' \equiv \frac{dy_S}{di} > 0.$$

South Korean firms are purely profit-motivated, and, it is assumed, for simplicity, that they make investment decisions solely on the basis of the marginal return to investment . The marginal return here refers to the risk-adjusted, net-of-transaction-cost rate of return to an additional unit of investment, and will serve as a single criterion for the profitability of investment.

For simplicity, assume that there are only two foreign countries, North Korea and, say, China, and denote the marginal return to investment in each country by $r_N(i)$ and $r_C(i)$ respectively. While both are non-increasing in i, it is not evident which is more sensitive to i. If $r_N(i)$ is lower than $r_C(i)$ at any i, then North Korea would attract none of outbound investment from South Korea and all of them will be directed to China. This is probably close to the current situation of South Korean outbound investment.

Now consider the cost of unification as a function of the difference in per capita income between two Koreas, given by $g = g(\frac{y_S}{y_N})$ where $g' > 0$ and $g'' \geq 0$. It is assumed that the unification cost is increasing and convex in such income difference. While such a dependence of the unification cost on income difference can be easily accepted, its independence from any other may be questionable. The intention here is simplification, and the task of identifying the functional form of the unification cost lies beyond the scope of this paper.

Suppose two Koreas will be unified with certainty. Then, the beneficial effect of investment in North Korea on the unification cost will be realized, so that it should be reflected in South Korea's investment decision-making. This assumption of certain occurrence of unification may seem too strong; however, making it uncertain will only lead to the substitution of expected values as long as the likelihood of unification is exogenous. The possibility that income difference may also affect the likelihood of unification is not considered here, although it may be the case in reality. [25]

The effect of i on g is obtained by

$$dg(\frac{y_S}{y_N}) = g'(\frac{y_S}{y_N})\frac{y_S}{y_N}\left[\frac{y_S'}{y_S} - \frac{y_N'}{y_N}\right]di \quad < 0$$
$$\text{if} \quad \frac{y_S'}{y_S} - \frac{y_N'}{y_N} < 0.$$

That is, its effect will be beneficial if income difference become smaller as investment in North Korea increases. This condition is likely to be satisfied since the capital stock in South Korea is now much larger than that in North Korea and consequently the marginal product of capital will be higher in North Korea than in South Korea. Now redefine the cost of unification, $g(\frac{y_S}{y_N})$, by $G(i)$ in terms of i. Then, $(-G'(i))$ represents the marginal benefit of investment in North Korea on the unification cost, and its response to i

[25] Previous studies of the estimation of the unification cost do not consider the uncertainty either but assume that the unification follows the predetermined rules. See, for example, Bae, J.Y.(1992) and Chun, H.T.(1995).

is characterized by

$$-G''(i) = -g''(\frac{y_S}{y_N})\left[\frac{d\frac{y_S}{y_N}}{di}\right]^2 - g'(\frac{y_S}{y_N})\left[\frac{d^2\frac{y_S}{y_N}}{di^2}\right]$$

It will have a negative sign if income difference gets smaller at the diminishing rate as i increases. It is also possible that it has a positive sign so that the marginal benefit of investment in North Korea increases with the level of investment. However, the total marginal benefit of investment in North Korea which is the sum of the marginal benefit of investment in North Korea and the marginal rate of return to investment is not likely to ever increase.

The principle of an optimal subsidy is straightforward. An efficient allocation of investment in North Korea will be reached when the South Korean government provides a unit subsidy equal to the marginal external benefit (the marginal beneficial effect of such investment on the unification cost) at the efficient level of investment. The marginal private cost of investment in North Korea is equal to its marginal social cost, and would be the maximum return that Korean firms could have earned if they invested elsewhere. Therefore, the efficient level of investment in North Korea will be reached when $r_C(i) = r_N(i) - G'(i)$, and the amount of the unit subsidy necessary to induce firms to increase their investment up to that efficient level ($\equiv i^{**}$) will be $[-G'(i^{**})]$.

Figure 1 shows how a unit subsidy can result in the efficient allocation of investment. Korean firms decide on domestic investment ($\equiv i_S$), investment in North Korea ($\equiv i_N$), investment in other foreign countries ($\equiv i_C$) simultaneously on the basis of marginal private returns to investment, denoted by r_S, r_N, and r_C, respectively. In order to maximize the total returns to investment, firms will choose $i_S{}^*$, $i_N{}^*$, and $i_C{}^*$ so that the marginal private returns to three types of investment are equal given the limited amount of resources for investment. These decisions are not, however, socially optimal since the marginal external benefit of i_N, which is $[-G'(i_N)]$, is not taken into account. Socially optimal levels of investment will be obtained at $i_S{}^{**}$, $i_N{}^{**}$, and $i_C{}^{**}$ where the marginal social returns to investment are identical. The effect of a unit subsidy for i_N is to increase the marginal private return received by the investing firms so that they will increase their investment from $i_N{}^*$ toward $i_N{}^{**}$, and it will be exactly $i_N{}^{**}$ when the firms are given the subsidy in the amount of $[-G'(i^{**})]$.

VIII. On September 20, 1995, the Wall Street Journal reported, " ··· (North Korean) Government officials talk of Mr. Kim (Il Sung)'s 'dying wish' that North Korea open up to foreign investment, even to the once-despised Americans and to South Koreans. But South Korea limits cross-border deals to only a few enterprises, largely because of political and security concerns ···." This observation along with many others shows that the South Korean government has not been enthusiastic about private investment in North Korea for some reason. Such a passive attitude is, however, unwarranted on the ground of economic principles, and in fact actively promoting investment in North Korea is in the interest of South Korea.

There is, obviously, more than the cost of unification that the South Korean government should be concerned with in making decisions relating to investment in North Korea. Short-run problems such as the nuclear reactor issue may, for the present, overshadow the logic of the argument presented in this paper. There are many uncertainties that make inter-Korean relations a complex and difficult issue. [26] Even so, they are of such importance to the Korean people that no issue relating to inter-Korean relations, including the issue of South Korean investment in North Korea, should go unexamined.

The main argument presented in this paper hinges upon the eventual unification of which anticipation has been affecting many aspect of lives of Korean people no matter whether it is realistic or not. Unification could be planned in advance and worked out, or it may happen as unexpectedly as a natural disaster. It is also conceivable that an improvement in the North Korean economy may, in the long run, worsen inter-Korean relations rather than bring about peaceful unification. It should be pointed out, however, that the likelihood and timing of unification depend upon whether and how it is prepared. Certainly, the pro-active measures such as the provision of a subsidy for investment in North Korea proposed in this paper is one way to prepare for the eventual unification in the right direction.

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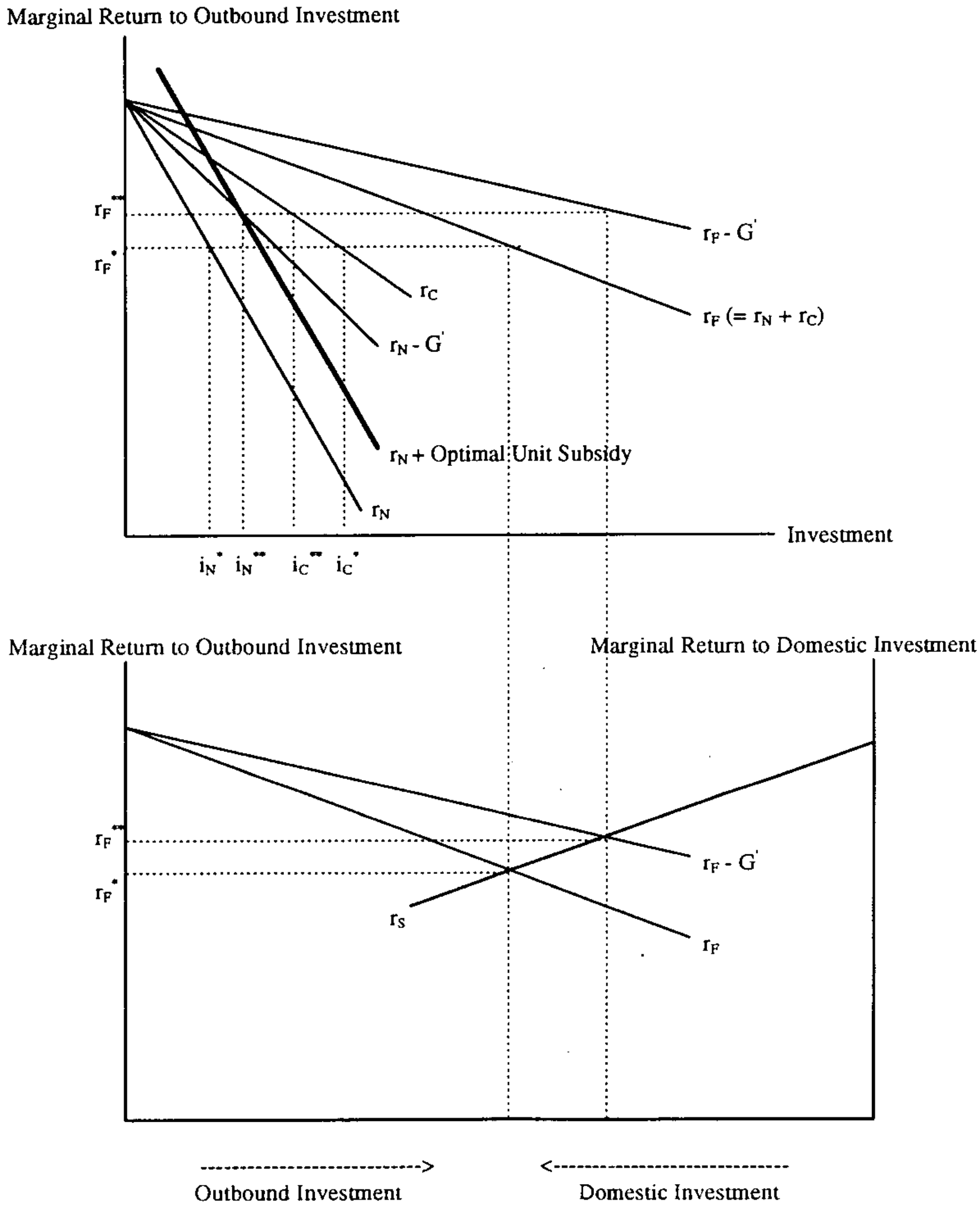
[26] See Lee, C. H.(1994b).

Figure 1. Optimal Unit Subsidy for Investment in North Korea



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