

Alternative Paths in Inter-Korean Relations and Their Economic Implications

Chung-Sok Suh*

This paper establishes three scenarios regarding the development of inter-Korean relations until the year 2000, "*Status Quo*," "Complete Unification," and "Partial *Rapprochement*." The conditions leading to each scenario are examined and the economic implications of these scenarios are discussed. The major economic benefits to South Korea from inter-Korean cooperation can be captured only in the long run, possibly after year 2000, even with the most rosy assumptions regarding the potential difficulties associated with cooperation and unification. Contrary to some very optimistic beliefs regarding an early unification, it is argued that the collapse of North Korea is not imminent, and that the *status quo* is expected to last much longer than is commonly believed. (JEL Classification: F15, P52)

*Department of Economics, The University of Wollongong, Northfields Ave., Wollongong N.S.W. 2522, Australia. The idea for this paper and its scheme of three scenarios for the development of inter-Korean relations originally arose out of the author's participation in the "Korea 2000" project, a program of political and economic analysis carried out in 1991-92 by the National Korean Studies Centre, Melbourne, Australia. The content of this paper was presented to and discussed at the Joint Seminar organized by the Institute of Economic Research, Seoul National University and the National Korean Studies Centre. The author is, however, entirely responsible for the opinions expressed here within. A preliminary version of this paper was also presented at a seminar at the Graduate School of International Relations and Pacific Studies, University of California, San Diego. The author would like to express gratitude to an anonymous referee, Professors Jeong, Ki-Jun, Adrian Buzo, and Lawrence Krause, for valuable suggestions. Thanks are due to Peter Beck for proof-reading this paper and providing insightful comments.

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I. Introduction

Although reunification has long been a national goal in both South and North Korea and the inter-Korean talks were initiated in the early 1970s, there had been little belief among the public that the reunification was near. However, in the second half of the 1980s the reunification issue was raised once again, but this time the public in the Republic of Korea (ROK) began to realize that there is a chance that they might see a unified Korea in their lifetime. Since then the issue has been much debated and received the focus of attention, and the ROK government under the President Roh even changed the structure of the cabinet accordingly, raising the status of the Unification Board (the Unification Board's minister is now a deputy prime minister), in order to plan and coordinate the unification policy effectively.

Reunification will undoubtedly change the future of the ROK entirely in many dimensions: political, economic and social. Certainly the unified Korea will be a larger country with a more diversified natural and human resource endowment, which will make it much stronger, both politically and economically after a certain period of adjustment. Yet, the costs of reunification will be substantial as the German experience has taught us. On the other hand, it is also possible that reunification, if not managed properly, may lead to serious chaos from which it will take a very long time to recover. There have been conflicting views as to the costs and benefits as well as the most desirable path toward Korean reunification.

This paper will establish three scenarios regarding the development of inter-Korean relations until the year 2000, identify the conditions leading to each scenario and discuss the economic implications of these scenarios. In order to cover a wide range of the foreseeable outcomes, two extreme scenarios and one in the middle will be examined: "*Status Quo*," "Complete reunification" and "*Partial Rapprochement*." It should be noted that these three scenarios do not cover all the potential paths; other possibilities including various combinations of the scenarios may emerge as well.

"*Status quo*" does not mean a static, non-changing state of the political, economic and social conditions. Instead, the term is used to imply no significant changes in the attitudes of the two states as far as their pursuit of inter-Korean cooperation is concerned.

"Complete reunification" can have various different meanings, because each Korea is putting forward different forms of the unified nation as their goals. Here, the ultimate form of the unified nation is "one nation and one government." The Democratic People's Republic of Korea (DPRK) has been arguing for a "Koryo Federation," which implies "two systems and two governments in one nation," but, this much vaunted "Koryo Federation" should be seen in propaganda rather than policy terms. So the complete reunification scenario selected in this paper depicts the picture that the two states will form one nation with one government with a market-oriented economy before the year 2000.

"*Partial Rapprochement*" covers a wide range of possible outcomes between the two extreme situations. In order to make specific distinctions between "*status quo*" and "*partial rapprochement*," the minimum assumptions in the partial *rapprochement* scenario are selected as follows. ROK residents are allowed to enter the DPRK with a ROK passport, trade with a DPRK partner, and perform normal joint venture activities, participating in the management of firms in the DPRK and transferring technology to the DPRK firms. Hence, an injection of investment without substantial participation in management or technology transfer, such as small-scale investments in tourism where a low degree of industrial technology transfer is required, would be classified as a cooperation under the *status quo*, not partial *rapprochement*. This is because such investment will not solve the fundamental problems in the DPRK economy but only contribute to the continuation of the regime by creating employment and providing foreign currencies, and hence helping to prevent a sudden collapse of the state due to economic difficulties.

Among these alternative paths, many suggest partial *rapprochement* and gradual reunification as the best strategy, while others support the strategy of "the earlier, the better". Contrary to some very optimistic attitudes regarding an early unification, it will be argued in this paper that the collapse of North Korea is not imminent, and that the *status quo* is quite a likely scenario which is expected to last longer than is commonly believed. An examination of the economic implications of these scenarios included in this paper is also illuminating: the major economic benefits to the ROK from the partial *rapprochement* let alone from complete reunification can be captured only in the long run, maybe after year 2000, even with the most rosy assumptions regarding the potential difficulties associated with inter-Korean cooperation and unification. Meanwhile, most of the benefits will go to the DPRK.

This paper is organized as follows. Section II starts by briefly examining the major factors in the two Koreas which might influence inter-Korean cooperation. Section III discusses the conditions leading to each scenario defined above. The economic implications of the partial *rapprochement* and complete reunification scenarios are explored in sections IV and V respectively, and concluding remarks are offered in section VI.

II. Setting the Scene: Forces Leading to the Unification of the Korean Peninsula

As the Korean peninsula was divided by foreign forces, it would be worthwhile to look at the positions of the neighboring countries first. Both Russia and China have established diplomatic and economic relations with the two Koreas and the unification of the Korean peninsula will not bring any tangible benefits to these countries. Russia will not be able to exercise any major role, as the country is predominantly occupied with its internal problems. China is expected to maintain neutrality regarding the Korean unification issue. Although the U.S. does not have diplomatic relations with the DPRK currently, a similar statement can be made regarding the position of the U.S., apart from the discomfort regarding the possibility that the close link between the U.S. and the ROK so far maintained, may be somewhat loosened after reunification. Japan, on the other hand, may even want to see Korea remain divided for fear that the unified Korea may pose a threat to regional security. Overall, it is hard to expect that there will be any strong incentive for other nations to help the two Koreas reunify. Consequently, the major driving force must be found within the two Koreas.

A. The ROK: Political Benefits versus Economic Costs

Reunification can yield substantial economic benefits through providing a larger domestic market and a growing competitive edge for Korean products due to a more diversified factor endowment pattern. However, in order to enjoy these benefits, huge investment for infrastructure development will need to be poured into the North first. Also, the orientation into an efficiency-based, market-oriented economic system is necessary to increase productivity in the North and the transition will take a long time. Therefore, the benefits from unification or

economic cooperation can only be captured in the long run after careful planning and coordination, and the costs will far outweigh the benefits in the short term. When these points are evaluated from a social point of view, a lower discount rate will be used. But, for politicians and private investors who must reap rather short term returns, much higher discount rates will be used. Considering that unification itself offers possibilities of, but does not guarantee any success in the future of the unified Korea, and that there is even a danger of failure after unification, a high risk-premium will be attached to these long-term benefits. Hence, the economic costs rather than the benefits will be the dominating factor in policy formation towards reunification in the ROK. With the economic costs dominating, it is not likely that the South Korean conglomerates (so called chaebols) will be very active in pushing national policies towards reunification although investment opportunities may exist for individual firms to exploit.

If economic benefits are not the major incentive, then what will drive the Korean peninsula towards reunification? The first and most important factor is Korean nationalism and the deep-seated emotional support. One in four Koreans are separated from family members in the other part of Korea and the emotional and social longing for reunification is extremely strong. The younger generation does not feel the emotional pain caused by the division as acutely and personally as the older generation, but this makes it easier to take flexible attitudes in pursuing cooperation. As the hostility towards the DPRK regime caused by the Korean War has somewhat faded out, Korean nationalism became a more important driving force towards reunification. Although the government will continue to take a cautious attitude, and tries to avoid too early a reunification, political parties including the government, will have to accommodate the desire of the public more, as democratization deepens.

The threat of a military invasion by the DPRK has long been one of the major concerns in the ROK since the Korean War. However, in the 1990s, the DPRK is no longer a major threat to the ROK. Even the presence of nuclear facilities in the North may not disturb most citizens in the South. Although Japan and the U.S. will require the absence of nuclear power as a precondition for political and economic cooperation between the two Koreas, the citizens of the ROK would like to handle inter-Korean cooperation issues independently from the nuclear issues.

In summary, the most important driving force in the ROK behind

reunification is nationalism and emotional support which will push the external policies towards unification, whereas the huge economic costs in the short and medium run serve as a force which will postpone it. Therefore, at the risk of oversimplification, this can be summarized as a trade off between political benefits and economic costs.

B. The DPRK: Economic Benefits versus Political Costs

Public sources of information on the nature of the DPRK and in particular its political dynamics are extremely sketchy. Even by comparison with former Maoist China and Stalinist Soviet Union, the political systems to which it bears strongest resemblance, not much is known of the way the political process operates, how issues are debated and how decisions are reached and implemented. Basic economic data are not released, and it was not until 1989 that even basic population statistics were released by the DPRK authorities.

Due to this lack of information, many foreign observers tend to disagree even on the basic points. But, some observations can be made.

1) The DPRK is a state in an accelerating process of economic and political decline. Its economy and strategic position have suffered serious setbacks under current government policy.¹

2) Some changes in the external policies, such as efforts to host more foreign direct investment, seem to have occurred in the DPRK.² However, it is still premature to conclude that these represent true signs of the beginning of substantial reforms in the DPRK. It is probable that the DPRK will try to earn some time and get financial support without changing its fundamental attitude.

3) Notwithstanding the longer term trend, it is hard to predict an immediate danger of collapse similar to the European experience. North Korean society is a tough, resilient body with distinct historical, political and social underpinnings.

The first and third propositions would seem to contradict each other, for their sum suggests a regime bent on self-destruction, albeit unwittingly. This is a clear example of the dilemma North Korea is in.

¹National Unification Board (NUB) (1991, pp. 1-5) and First Economic Research Institute (1991, pp. 47-70). However, Hwang (1991) reports that the economic conditions may be better than are commonly reported in other studies.

²Korea Chamber of Commerce and Industry (1990, pp. 61-70). Also, Korea Trade Promotion Corporation (1992, pp. 1-15).

Judging from informal and also piecemeal information, there are many signs that the society is changing, and reports of demonstrations and attempted coups are heard as well. It is widely agreed that the DPRK economy is undergoing unprecedented hardship and even basic necessities such as food and petroleum are in short supply.³ Furthermore, changes and internal problems in Russia, China, and other ex-Soviet bloc countries have left North Korea alone in its attempt to survive the present economic difficulties. Yet, all of these points do not present a picture of imminent upheaval of the DPRK society, and no major disruptions in the political stability are foreseeable at least until Kim Il-Sung dies. This will be explained in more detail in section III.

Although the DPRK, (especially Kim Il-Sung himself), has claimed that reunification is its primary goal for the past 40 years, it is clear that the leaders and technocrats in the DPRK have little to gain from the complete reunification. Since the possibility of a military take-over by the North is completely ruled out, the whole system will have to change into a market-oriented system after complete unification, leaving them no firm ground to stand on. So, the major motive for cooperation with the ROK and/or other countries has to be the survival and continuation of the state and not reunification with the ROK. Ironically though, the opening of the state and large scale economic cooperation will itself pose a threat to destroy the North's system, as the continuation of the Kimist regime has been based on lies and the suppression of information.

Therefore, there exists a trade off between political costs and economic benefits in the DPRK's carrying out economic cooperation with the ROK and/or other western countries.

III. Conditions Leading to Each Scenario

In the previous section, it was shown that there exists a different pattern of costs and benefits in the ROK and the DPRK in their pursuit of inter-Korean policy for cooperation. In this section, the focus of analysis is how these costs and benefits will lead to possible outcomes in inter-Korean relations.

³NUB (1991, pp. 6-12). However Chang (1991) reports that until 1988 the energy supply had been quite stable.

A. *Status Quo Maintained*

So far, the DPRK has shown a passive attitude in participating in inter-Korean exchanges, whereas the ROK began to take a more positive attitude since 1987. Consequently, the pace of development in the inter-Korean talks and relations so far, has been largely determined by the North Korean participants. Although there have been many improvements such as the December 1991 Declaration, several rounds of talks between prime ministers and the DPRK's consent to International Atomic Energy Agency (IAEA) inspections, many commentators are still doubtful whether these indicate genuine changes in the willingness of North Korea to promote inter-Korean relations.

The key assumptions for this scenario regarding the conditions in North Korea are as follows. First, it is assumed that the Kimist regime or any subsequent political leaders will continue to pursue hard-line policies. Kim Il-Sung has not merely presented himself as the national leader, but also idolized himself, and this is one of the reasons why the Kimists were able to maintain the most rigid, water-tight regime in the world. But, once the water starts leaking, it will soon turn into a flood, which will then become beyond control. Therefore, as long as the Kimists remain in power, they will try to insulate society from external influences and any substantial changes in their external policies are not foreseeable.

On the other hand, the *status quo* scenario by definition assumes no collapse of the state until the year 2000. The sensational report by Aidan Foster-Carter⁴ asserts that by 1995, if not before, North Korea will collapse and South Korea will have to take over. Yet, this conclusion seems too strong. It fails to take into consideration the difference between the European model of communism and the Asian model of communism. European Communism was initiated, maintained and controlled by the USSR. Without the control of the Soviet Union, it is hard to imagine that the Eastern Bloc countries would have remained as communist countries for all those years. As soon as the Russian control disappeared, reforms quickly followed in those countries with few exceptions. However, communism in Asia has endogenous components as well. China developed its own model and ideology and is out-living the USSR. Also, this is why countries such as Vietnam and the DPRK do not show any signs of imminent collapse, which could have

⁴Forster-Carter (1992, pp. 1-30).

been influenced by the European trend. Therefore, if the DPRK collapses, it is more likely to be due to the degrading economic conditions or collapse of the information control, rather than political influences. Yet, the people of North Korea are extremely resilient. Although the economic conditions have been deteriorating rapidly, this alone may not be a sufficient condition for an immediate collapse of the state, as long as information can be controlled as strictly as it has been. An example can be found in Iraq, which are not collapsed even after being defeated in the Gulf War. Cuba is also expected to last much longer despite its current economic difficulties.

As mentioned in the previous section, the principal motive to open up the closed state is to continue the present regime and to avoid a collapse of the state due to economic difficulties. But the opening itself may precipitate the collapse of the regime as it invites the flow of information from the outside. Therefore, as long as the Kimists remain in power, any inter-Korean economic cooperation will be confined to the extent that the flow of information can be strictly controlled. Special export zones (SEZs) are a good example, since these regions can be isolated from the rest of the country while injections of investment flow in. Therefore, these export processing zones will remain *enclaves*, which cannot create substantial forward or backward linkages with the rest of the economy, hence no major impact on the overall development of the state other than creating some employment. If the goal of the leaders and technocrats in the DPRK is the continuation of the regime and not an economic miracle, then the *status quo* will be their rather preferred option. Accordingly, inter-Korean cooperation will continue to be strictly controlled.

On the other hand, the *status quo* is the bottom line of the ROK policy. Conservative politicians will try to minimize disruptions to the existing system. Considering the major drive towards reunification is Korean nationalism and emotional support, the drive leading to reunification will be relatively thinly spread, whereas the economic costs related to reunification will be felt more acutely by policy-makers. If the economic costs are given more attention and therefore a cautious stance maintained, the pace of inter-Korean talks and cooperation will continue to be led by the North Korean participants. However, as long as the collapse of the DPRK can be avoided, the *status quo* may remain an acceptable option for ROK policy-makers.

Therefore, the *status quo* will be maintained if the political costs are given more weight than the economic benefits in policy formation in the

DPRK and the economic costs outweigh the political and social benefits in the ROK. Under this scenario, policy-makers on both sides will try to buy some time while preserving their existing power structures.

B. Complete Unification

As mentioned before, the "Koryo Federation" is excluded from consideration because such a federation will be mainly a nominal entity and each system with its own government will continue to serve as a separate *de facto* nation. Therefore, this scenario implies that unification will be achieved when South Korea takes over the North as in the German model and that complete unification will not be achieved through dialogue and negotiations, since the complete unification is not the goal of the DPRK policy-makers. Then, two possibilities exist. The first is the collapse of North Korea from the *status quo* scenario. In this case, the collapse of the DPRK would occur due to the worsening of the present economic difficulties, or due to an unexpected collapse of the Kimists' regime followed by the collapse of the whole system. In that event, they are likely to turn to the ROK, which will have to take the North over and pick up the pieces. However, another path is also possible, originating from the partial *rapprochement* scenario. In this case, unification would be led by democratic reforms in the DPRK sparked by influences from the ROK and other Western countries. Although the probabilities of either of these outcomes occurring are not very high, certainly these cannot be ruled out.

If unification is achieved from the *status quo* path, the principal concerns centre around two aspects: the costs of reunification and possible failure after reunification due to mismanagement. According to calculations based on recent research carried out in Australia,⁵ the cost of reunification, if it occurs in 1995 from the *status quo* scenario, are estimated to be US\$700 billion in 1990 prices, which is about 1.4 times the expected GNP of the ROK in 1995 and 1.3 times that of the unified Korea. Naturally, policy-makers in the ROK will try to minimize these costs by narrowing the gap in the living standards of the two Koreas. Thus, partial *rapprochement* would be a much preferred interim option to complete reunification by the ROK policy-makers.

Another important consideration to be taken into account is the possibility of failure after reunification. Most existing calculations of the

⁵Australian Department of Foreign Affairs and Trade (DEFAT) (1992, pp. 99-102).

cost of unification are based upon the assumption that after unification transition will occur smoothly and all difficulties associated with the amalgamation of the two systems into one will somehow be solved smoothly. In this sense, the cost of unification indicates the lower bounds of such costs, and the upper bounds cannot be calculated. There are numerous examples in the experiences of other nations where mismanagement created enormous costs. A unified Korea will certainly have more problems to be solved than in the German case, if the unification occurs unexpectedly without preparations. Without careful planning and coordination, the possibility of chaos and failure after unification cannot be ruled out. Therefore, it is conceivable that the ROK government will try to avoid too early a reunification and to pursue unification via partial *rapprochement*, rather than through an immediate collapse of North Korea.

In summary, complete unification by the year 2000 can only result from an unexpected collapse of the DPRK and not from voluntary talks and negotiations between the two states.

C. Partial *Rapprochement*

Opening in the DPRK to any extent, involves the risk of weakening of the governmental control, which may eventually lead to the collapse of the regime. Consequently, the DPRK government will try very hard to insulate society from the influences of market economies, while aiming to capture the benefits from the inflow of foreign investment, technology and access to foreign export markets. The partial *rapprochement* scenario, therefore, presupposes that economic pragmatism outweighs political conservatism, which can only result from a substantial shift in the forces inside the DPRK leadership. This can occur only after the death of Kim Il-Sung and the subsequent changes in the power structure. Assuming that political stability is somehow achieved, the DPRK will initiate partial *rapprochement* mainly from economic, rather than political motives.

However, it is possible that the ROK will enter partial *rapprochement* with several different motives. It will be discussed in section V that partial *rapprochement* will create uneven benefits in the two Koreas. The economic benefits to the ROK under the partial *rapprochement* scenario are not expected to be sizeable at least in the short and medium term. Therefore, the motive must be found elsewhere. The aspirations of the public towards reunification alone would be a good reason for the ROK to respond to or lead the DPRK's move toward partial *rapprochement*.

ROK conglomerates may wish to enter into joint venture projects to secure a foothold in the DPRK economy in preparation for eventual reunification. Certainly, the ROK government will not wish to be left behind Japan in economic cooperation with the DPRK. Although considerable risks may be involved in the ROK government guaranteeing investment projects in the DPRK, the ROK government will be willing to assist the DPRK economy and try to use all means to open the DPRK as it will serve two purposes: reduce the possibility of the DPRK collapsing too quickly, and the costs of reunification in the mean time. Seoul's initiative in establishing diplomatic relations with China may be understood in this context.

Two points deserve further attention. First, the ROK government and the conglomerates may have different attitudes towards partial *rapprochement*. If the conglomerates are hesitant to get involved in large-scale joint-venture projects due to the relatively small short-term economic returns, the government will be hard-pressed to motivate them to invest, participate in management and transfer technology. Also, if the government, not the private sector, takes the lead in selecting industries and promoting inter-Korean economic *rapprochement*, there exists the danger that lumpy and inefficient investment similar to those in the mid-1970s may reappear.

Another important issue is that economic cooperation between the DPRK and its neighbors will strengthen the position of DPRK government. Certainly, it will reduce the possibilities of an early collapse of the government, but when the economic situation is stabilized, there will be little incentive for DPRK leaders and technocrats, who have already achieved both political and economic hegemony, to move towards unification. If the living standards of the residents of the DPRK are raised, then it is also possible that unification may never come. Therefore, the possibility that partial *rapprochement* and economic cooperation may end up further cementing the present division, instead of leading to unification must also be considered.

Effective partial *rapprochement* and economic cooperation, although frequently argued in the debate related to inter-Korean cooperation as a most likely and desirable scenario, are based on quite stringent assumptions: that the change in the power structure in the DPRK will successfully be finalized, leading to an opening of the economy towards the ROK and other countries; and ROK conglomerates will somehow be motivated to invest in the DPRK despite limited short and medium-term returns. If these conditions are not met, then inter-Korean rela-

tions are likely to proceed according to the *status quo* scenario, unless a sudden collapse of the DPRK occurs.

IV. Economic Implications: Partial *Rapprochement*

Under the *status quo* scenario, it is assumed that the ROK economy will maintain a high growth rate, although the rate of growth will taper off from near 10 percent to around 6 or 7 percent (The ROK Economic Planning Board, 1991), whereas the DPRK economy will not show major changes. Loans and investments may flow into the DPRK, mainly from the ROK and Japan, albeit sporadically. However, these will cause neither major increases in labor productivity nor significant improvements in the quality of products in the DPRK, because ROK managers would not be allowed to participate in the management, the incentive system does not change dramatically; hence relevant technology will not be transferred successfully. The SEZs such as the Tuman river project and the Nampo area project are expected to proceed. However, as mentioned before, The SEZs will remain *enclaves* without major forward and backward linkages to the DPRK economy. Also, it is estimated that it will take about 10 years before the SEZs will be operating efficiently.⁶ Therefore, these investment and the SEZs will serve to prevent a sudden collapse of the state, but will not have significant influence on the overall DPRK economy. Therefore, the picture of the two Koreas under the *status quo* scenario is the continuation of the current trend without major stimuli to the DPRK economy. Hence, the focus of attention is given to the economic implications under the partial *rapprochement* and complete reunifications scenarios.

A. The Economic Dimension: The ROK

Private economic cooperation between the ROK and the DPRK, in the state of partial *rapprochement*, will proceed according to economic principles, rather than political considerations. Goods and services will be exchanged if trade produces mutual economic benefits. Investment will be expected to be carried out if profitable opportunities exists.

The ROK and the DPRK have already been trading indirectly through third countries and/or anonymously. Limited direct trade began in 1991.⁷ Under partial *rapprochement*, direct trade will bring about more

⁶This is observed from the Chinese experience.

benefits for the ROK than in the present *status quo*. But the economic benefits to the ROK may be small compared to the political benefits, because possible economic benefits from direct trade can be almost fully realized in indirect and/or anonymous trade in the hands of talented entrepreneurs. New opportunities to establish joint ventures with DPRK partners and direct investment in the DPRK may open up for ROK entrepreneurs. But most new opportunities would be in labor-intensive industries, for which the competition in the international market is very intense. Therefore, the expected additional benefits from the new opportunities may not be substantial. Although the absence of a language barrier and low transportation costs are clear advantages, creating incentives among the DPRK workers and improving the quality of products will take time. Judging from the Chinese experience, it may take a long time, perhaps 10 years at least, before products from the DPRK can compete successfully in international markets.

Developing the North's infrastructure such as roads, ports, airports and telecommunications systems, will be critical for future DPRK's economic growth. The ROK may participate in such projects with mutual profits, but the domestic economic implications of such projects under partial *rapprochement* may not be significantly different from those in the *status quo*. Under the *status quo* the ROK economy is experiencing virtually full employment. Therefore, participation by the ROK in DPRK construction projects in the state of the partial *rapprochement* may be possible only through replacing existing construction projects in other areas of the world. Natural resources such as coal and iron ore are abundant in the DPRK compared to the ROK, but excavating costs are quite high in the North compared to international standards.⁸

The political implications of partial *rapprochement* in the ROK will be enormously different from those of *status quo*, but considering the above factors, it can be concluded that, from a purely economic point of view, the domestic economic implications of partial *rapprochement* in the ROK may not be much different from under the *status quo*, at least in the short run. Overall, not many unprofitable opportunities under the *status quo* will become profitable during the state of partial *rapprochement*. Therefore, the major drive towards partial *rapprochement* can be found in political rather than economic motives.

⁷First Economic Research Institute (1991, pp. 71-86).

⁸See NUB (1991, pp. 10-13), Chang (1991, pp. 43-52), and the paper by Chang, Young Sik in KDI (1992).

B. The Economic Dimension: The DPRK

Under partial *rapprochement*, opportunities for ROK direct investment from the ROK into the DPRK will expand. Actual inflow of investment, however, will be constrained by the antiquated infrastructure and the absorption capacity of the DPRK economy. Therefore, investment flow will increase slowly as the absorption capacity increases. Although the magnitude of inter-Korean investment may not be large, it is expected to provide important stimuli to the DPRK economy.

The key assumptions for partial *rapprochement* are the transfer of management and technology. Although the size of foreign direct investment from the ROK and other countries may be small initially, its effect on the overall economy can be sizeable. Workers in the DPRK will be able to understand the capitalist economy of the ROK, realizing the importance of competition and monetary incentives in economic development. Consequently, it will generally improve the quality of DPRK products, spilling over into other industries and help to increase productivity.

Overall, the growth rate for the DPRK economy is expected to rise rapidly under the partial *rapprochement* scenario, considering the current downturn. Inter-Korean trade will increase the production of agricultural and manufacturing goods, especially those which produce tradeable commodities. In the short run, it will alleviate the shortage of commodities, including foodstuffs. In both the agricultural and the manufacturing sectors, complementary development of industrial structures may be realized, albeit partially. In the agricultural sector, rice will be produced in the ROK region, but other types of grain will be produced in the DPRK, showing a regional division of labor. In the manufacturing sector, production in labor-intensive industries will expand in the DPRK. In the energy sector some cooperation will also be possible. For example, due to different seasonal peak demand structures, some trade in electricity may be possible, hence increasing the capacity factor in electricity generation. Major expansion is expected to occur in manufacturing and construction, but the importance of heavy industry in the DPRK will decrease significantly, whereas light industry will expand to supply consumer goods. The service sector is also expected to expand, thanks to investment likely to be injected in electricity generation and in the transport system. As the agricultural sector will not be included in major joint development projects, the increase in production is expected to be smaller in the agricultural sector than in

other sectors. Yet, some reforms are expected under the partial *rapprochement* scenario, with the intent of increasing the efficiency in land use and preventing over-exploitation. Hence, agricultural production will expand at a faster rate but the proportion of the agricultural output in GNP is expected to decline further. Some cooperation is expected in the fisheries industry as well, which will increase production considerably.⁹

Initial inter-Korean economic cooperation, if successful, will help to establish international recognition of the openness of the DPRK, building confidence among potential trading partners and investors. Improved infrastructure through inter-Korean investment, will also provide an environment conducive to stimulating foreign entrepreneurs' interest in the DPRK. Under this scenario, the DPRK will also have to rely heavily on imported energy for its development. Oil imports will come mainly from the Middle East, Russia and China, while coal imports may come from other regions as well as China. Natural gas development between the ROK and Russia, if it proceeds, will be an important source of energy as well. Although the DPRK will try hard to reach self sufficiency in food production, required grain imports will increase as the focus of international cooperation shifts to the manufacturing sector.

This section has examined the economic implications of the partial *rapprochement* scenario and it is shown that economic partial *rapprochement* will create uneven benefits to the two Koreas. Most of the short-term benefits will go to the DPRK while it will take many years, perhaps longer than 10 years, before ROK investors will enjoy returns. Therefore, although the government will be more active in promoting direct investment and technology transfer into the DPRK, private investors, mainly conglomerates, will be rather hesitant. Even after assuming that the stringent preconditions in the DPRK for the partial *rapprochement* scenario mentioned in the previous section are all met, the resulting uneven economic benefits in the two Koreas indicate that the possibility of this scenario developing is at best unlikely.

⁹Jeong and Suh (1992, pp. 32-45).

V. Economic Implications: Complete Reunification

A. A Brief Overview of the Economy of a Reunified Korea

For the sake of providing a reference point, it is assumed that reunification will occur in 1995, from the *status quo* scenario directly. The reunified Korean economy will be fairly large, with a population of 70 million and a work-force of over 30 million people. GNP is expected to be US\$519 billion.¹⁰ Although the work-force in the DPRK region will account for 33 percent of the total, GNP contributed by the DPRK region will be only 5 percent. Per capita GNP in the DPRK region will be one tenth of that in the ROK, a dramatic difference, especially when one considers the German case. Table 1 summarizes likely economic indicators in the reunified Korea in 1995.

As shown in the table, the agricultural sector in the DPRK region will contribute about 9 percent of the national total; the northern manufacturing sector shows a similar proportion. However, the social overhead capital and service sector shows a much wider gap between the region, with the north contributing only 2.5 percent of the total. Foreign trade will be dominated by the south.

If managed well, there will be many benefits from reunification to the economic development of the Korean peninsula after an initial period of adjustment. Due to the expanded size of the economy, domestic demand will play a much more important role in development in a reunified Korea, diminishing vulnerability to overseas shocks. The larger domestic market will enable industries to enjoy greater economies of scale, while more diverse consumption patterns will increase the degree of product differentiation.

Complementarity between the ROK and the DPRK lies mainly in the relative endowment of capital, technology and labor. During the second half of the 1990s, high wage rates have caused many producers in labor-intensive industries to move offshore, mainly ASEAN nations and China. After reunification, the expanded labor force, combined with low wage rates in the DPRK region, will give Korean exports a new edge until wage rates in the north increase to a level comparable to that in the south.

¹⁰The figures for the ROK are taken from Economic Planning Board (1991), and the figures for the DPRK are taken from Jeong and Suh (1992).

TABLE 1
MAJOR ECONOMIC INDICATORS OF A UNIFIED KOREA IN 1995

	Unit	The ROK Region	The DPRK Region	Unified Korea
Population	million	45.4	23.4	68.8
	%	(66)	(34)	(100)
Work-force	million	20.9	10.3	31.2
	%	(67)	(33)	(100)
GNP	US\$ billion	493	26	519
	%	(95)	(5)	(100)
GNP per capita	US\$	10,900	1,091	7,543
GNP growth rate	%	7.5	2.0	7.2
Industry structure:				
Agriculture	US\$ billion	69.0	6.7	75.7
	%	(91.1)	(8.9)	(100.0)
Manufacturing	US\$ billion	128.1	12.0	140.1
	%	(91.4)	(8.6)	(100.0)
SOC and others*	US\$ billion	295.7	7.5	303.2
	%	(97.5)	(2.5)	(100.0)
Export	US\$ billion	120	2.2	122
Import	US\$ billion	117	2.4	119

Note: * Social overhead capital and the service sector

Source: *Korea to the Year 2000: Implication for Australia*, East Asia Analytical Unit, Australian Department of Foreign Affairs and Trade, Australian Government Publishing Service, Canberra, 1992.

1) *Economic Policy after Reunification*

Reunification presupposes one nation and one government. However, hasty economic integration would be undesirable and very costly as can be seen from the recent German experience. At the time of German reunification, the per capita GNP gap between the two Germanies was much narrower than that between the two Koreas, in ratio terms. Also, the West German economy was much more developed than the ROK economy and the conditions in the East German economy were far better than those of the DPRK economy. Therefore, the German style integration will create unbearably chaotic results in the unified Korea economy. Overall, it would be highly desirable to maintain two economic systems temporarily. Merging into one system should occur gradually. A salient example can be found in the Chinese plan for "two systems, one nation" in absorbing Hong Kong. The people in the DPRK region will need time to adjust to a market oriented economic system.

learning to cooperate and compete with those in the ROK region successfully. Considering the wide differences in the productivity of workers in the two regions, an abrupt equalization of wage rates would be chaotic, as experienced in Germany. However, wage rates determined entirely by the free labor market may be equally undesirable, which will be inequitable and may later develop into a serious political issue. This may be another argument for a temporary plan of "two systems, one nation".

Privatization of land will be another extremely important task, which should occur over time with careful control. Otherwise, the pattern of ownership of land would be extremely unequal, considering the current pattern of land distribution in the ROK economy which is very concentrated. It would be relatively easy to maintain two systems in terms of fiscal policy, with different tax structures and government outlays. To encourage private investments in the DPRK region, lower corporate taxes with investment rebates would be effective. However, management of the monetary system will require more attention because inflation will create asymmetric consequences in the two regions.

2) Financing the Costs of Reunification

The costs of re-unification, mentioned in section III highlight the level of investment required to equalize the GNPs of the two regions, and excludes expenditures for investment required for growth in the economy. Raising an extra US\$700 billion for investment, which amounts to 1.3 times GNP of a unified Korea, will certainly not be an easy task. Equalizing GNPs of both regions will take many years. Therefore, the supply of funding can also be spread accordingly. Part of this required investment can be financed by taking advantage of reduced military expenses and the huge labor-force which will be released from the armies both in the ROK and the DPRK.

The national savings ratio is expected to decline due to the low savings ratio in the DPRK, though only marginally considering the low proportion of the income of the DPRK in terms of total GNP. The projection included in the report by the Australian Department of Foreign Affairs and Trade (1992) shows that the savings ratio in the ROK economy would decline from 35 percent in 1990 to 31 percent in 1995 if the current trend continues. A successful national savings campaign would be able to raise the savings ratio, hence decrease the required inflow of foreign capital from the level of 5 percent of GNP each year by a considerable margin. If the ROK government starts the campaign ear-

lier with strong a commitment to reunification, the savings ratio may not decrease much from the current level. Other sources of funds are international loans and foreign direct investment. Inflow of foreign capital will depend on the growth prospects of a unified economy, which would be largely influenced by political and social stability. Foreign direct investment or international loans of less than 2 percent of GNP is considered manageable.

B. A Reunified Korea in the International Economy

At the time of reunification, the proportion of international trade contributed by the DPRK region is expected to be less than 2 percent of the total trade of a reunified Korea. It will take some time before production in the DPRK region increases alongside improved quality. Therefore, in the short run, no major deviation will occur from the current ROK export pattern due to the exports of the DPRK region. However, massive increases in investment in the north will absorb a fair proportion of the production of the south, and imports will increase faster than exports in the short and medium run. Machinery imports will increase substantially to boost infrastructure development. The import of agricultural products will also increase in the short and medium run, considering the shortage of food in the DPRK. Importation of grains will decrease gradually after the initial phase, as the agricultural sector in the north gains efficiency with better management and with private incentives created. Import of meat and dairy products, however, will continue to increase as the living standard of the people in the north improves. In the export sector, labor intensive commodities will regain strength for a considerable period of time until the per capita income of the DPRK region increases substantially.

Although the DPRK is relatively better endowed with energy resources, such as coal and hydro-electric power, than the ROK, the DPRK imports 12 percent of its total energy consumption in 1990, and the shortage of oil continues.¹¹ Therefore, after reunification, energy imports will increase. Also, considering that 82 percent of the total energy is consumed by the DPRK's industrial sector in 1990 (48 percent by the industrial sector in the ROK in 1990), the import of energy will increase rapidly after reunification, as energy consumption in the residential and commercial sectors increase due to the improvement of living standards. In 1990, 70 percent of the total energy consumption

¹¹NUB (1991, pp. 10-15).

was met by coal in the DPRK. The increase in the import of oil and liquified natural gas is expected to be much larger than that of coal, as the residential, commercial and transport sectors will use less coal than the industrial sector. The DPRK has an iron ore reserve of about 3 billion tons and the production capacity is approximately 10 million tons per year. Currently, iron ore mined in the DPRK is sufficient for domestic consumption, but after reunification, steel consumption will increase, and iron ores will continue to be imported from overseas. Iron ore imports may increase, if the mining facilities in the north cannot be efficiently expanded.

Although reunification means a great deal to the two Korean states, it may not influence the overall trade and investment pattern in the Asian-Pacific region at least for some time after reunification. However, a reunified Korea, provided the country overcomes the initial adjustment problems successfully, will become more important in the Asian-Pacific scene. The reunified Korea will provide a larger market for countries in the region. Specifically it is expected to become the second largest importer of energy resources in the region after Japan. A more diversified import and export pattern will emerge in the re-unified Korea, exporting both capital and technology intensive products, and labor intensive products. Therefore, the commodity composition of the re-unified Korea will overlap with that of ASEAN countries and China as well as Taiwan and Singapore. This will cause substantial increases in intra-industry trade, as well as inter-industry trade.

This section sketched a rough picture of a unified Korea and examined its economic implications. As mentioned in section III, it is difficult to imagine that reunification before the year 2000 can be achieved through any other way than by a sudden collapse of the DPRK. If such a collapse occurs, then the south will have take the north over and start operating the devastated economy immediately. A "managed" reunification, in the sense that the two systems will merge into one gradually, is recommended to minimize unfavorable consequences which will be very difficult to remove once they occur. As shown above, major returns from reunification will be able to be harvested only in the long run, and in the short-and medium run, current account deficits are expected to increase substantially and the unified Korea will be one of the major capital importers in the Asian-Pacific region.

In the 1960s and early 1970s the international trading environment was quite favorable and the ROK was able to continually increase exports for thirty years. However, the trading environment in the 1990s

is much tougher and more unpredictable. Certainly, the reunified Korea will be alone in the international economy if it fails after reunification. Therefore, it cannot afford to make serious mistakes in managing the transition. Exhaustive research and careful preparations will prove to be invaluable for the future of a unified Korea.

VI. Summary and Concluding Remarks

This paper has discussed alternative development paths in inter-Korean relations until the year 2000 by grouping them into three scenarios, "*status quo*", "*partial rapprochement*" and "*complete reunification*", and examined their economic implications. The DPRK's motive in participating in inter-Korean cooperation is to survive and continue its regime, not the eventual unification of the Korean peninsula. Therefore, "*complete reunification*" is an option to be avoided at all costs and "*status quo*" is a certainly preferred option by the leaders in the DPRK, who will at the same time try to secure loans and investments from the ROK and Japan in order to alleviate the danger of collapse. Yet, loans and investments without transfers of management and technology will not solve the deep-rooted problems in the DPRK economy, which will lead eventually either to the complete reunification via the collapse of the state, or to *partial rapprochement* if substantial reforms are successfully introduced. However, it may take a long time before either of these changes occurs. Under the *partial rapprochement* scenario, the DPRK economy may achieve rapid growth as the transfer of management and technology which will provide stimuli to the economy. But this scenario presupposes substantial reforms in the DPRK leadership structure, and may occur only after the shift of the leadership from the Kimists.

In the ROK, Korean nationalism and emotional support are the major driving force behind the unification of the two Koreas. A trade-off between political benefits and economic costs exists in the process of reunification. So far, the pace of inter-Korean relations had been determined by the willingness of the DPRK, but the ROK has begun to act more positively in taking the initiatives, placing the ball squarely in the DPRK's court. Currently, *partial rapprochement* is preferred to the *status quo* by the policy-makers in the ROK for two reasons: it prevents too early a collapse of the DPRK and it will reduce the costs of reunification. Yet, it must be stressed that this scenario is based on much more stringent preconditions and that the South Korean conglomerates

(Chaebol) are likely to be rather hesitant to invest in the DPRK and transfer technology due to the small economic returns in the short and medium-run. The discussions in section IV reveal that the benefits to the two Koreas from economic *rapprochement* will be uneven and most of the short and medium term benefits will go to the DPRK, which will strengthen the position of the leaders and technocrats in the state. This may yield paradoxical result that "partial *rapprochement*," which is pursued with the intent to ease the burden of reunification, will postpone unification itself, and if the DPRK succeeds in developing and strengthening a new form of the state, in an extreme case, it is possible that unification may never come.

Complete reunification is the end goal, but it is not preferred in the short run, due to the huge costs associated with too early and unplanned a unification. However, if it occurs unexpectedly due to a sudden collapse of the DPRK, the ROK will have to accept it because the opportunity may never come back again. The economic implications of complete reunification was discussed in section V, and it was argued that if a sudden unification occurs, there should be an interim state of "two systems, one nation, under one government," which will help to ease the burden of too rapid an economic integration. Considering the huge costs and also the possibility of failure after this unexpected event, careful planning and preparations in advance are strongly recommended. For example, a successful savings campaign will prove to be invaluable.

Currently, the most urgent and import agenda in inter-Korean talks is to solve the difficulties caused by the DPRK's attitude related to the unclear issue. Thanks to the efforts and negotiations of the ROK, and also the neighboring countries, the DPRK started to show compromising attitudes with regard to the Non-proliferation Treaty (NPT). Yet, even after the nuclear issue is solved, the *status quo* is expected to prevail for the time being. The death of Kim Il-Sung and how the changes in the leadership will proceed is one of the most important and unpredictable factors which can affect all the three scenarios.

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