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The Road to the Market in North Korea:
Projects, Problems and Prospects

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The Road to the Market in North Korea: Projects, Problems and Prospects

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ABSTRACT

North Korea's economic reform began in the mid-1980s. It was motivated by the increasing seriousness of the problems typical of centrally planned socialist economies.

In general, the country's reforms have so far been limited both in scope and depth. This is a main cause of the escalation of economic hardships. As a result of the deepening crisis, spontaneous marketization and privatization are occurring in the economy, especially in agriculture and the consumer goods sector, although there is not much fundamental change in the domestic economy.

The controlled promotion of light industry and agricultural decentralization is intended to provide the North Korean population with basic necessities. An open-door policy is being used to meet the goal of modernization by reducing the foreign exchange gap. Progress is slow partly because of international political and economic circumstances affecting the Korean peninsula, and this is beyond North Korean control to a certain extent. Nevertheless, the open-door policy is expected to lead to the marketization of North Korea's economy by attracting new economic entities to the coastal zones, rural areas and eventually other areas. Success with the open-door policy will mean that reforms in the domestic system can proceed in a more radical way. This will set the stage for a peaceful integration with South Korea. Such a transition strategy can be considered a 'soft landing' scenario.

However, the economic situation in North Korea is rapidly worsening, and time is running out. Thus, a pessimistic 'hard landing' scenario is also a possibility. Here, the open-door policy ends up failing because of no US or international help. In this case, the current crisis will deepen into a collapse, which will generate political leadership changes internally or lead to a South Korean take-over. In either case, the simultaneous and radical reform of the domestic system and of external economic relations that is initiated by either a new North Korean leadership or South Koreans would represent a natural course of events. Reform would proceed simultaneously

with rapid economic integration with South Korea, and the German big-bang model would become relevant in the transition.

It is true that, given the ever worsening situation in North Korea, the hard landing scenario seems more probable. However, this does not mean that the sudden collapse of the government is the best option. The soft landing scenario does not mean 'act slowly'. To realise the scenario, we must act as quickly as possible to improve the situation in North Korea by taking unilateral actions and urging North Koreans to opt for more radical policies.

However, an important element in the soft landing scenario is a more radical reform package. Can we expect the current leadership to take such a policy line? The worsening situation is encouraging this option. However, it has also been leading the hard-liners, including the military, to seek more power inside the top leadership. This tends to make one sceptical about the policy alternatives.

1. INTRODUCTION

The communist government in the former Soviet Union fell because of reform failures, whereas in Eastern Europe reform began with the fall of the former communist governments. Faced with systemic economic crisis, the North Korean government has launched its own reforms, albeit cautiously. The government wants to avoid the two paths followed in Europe. It feels that there are better reform models: China and Vietnam. These communist countries are making steady progress and do not face the immediate danger of a collapse in government (Than 1996, Lin et al. 1996).

It is natural that North Koreans hope that their reforms will follow the Asian path rather than the East European path. For this hope to be realized, the reform of the economic system in North Korea will have to be successful before the current crisis causes total chaos. At the same time, the North Korean leadership would like to control the reform process so as to avoid any unexpected government collapse. This is the fundamental constraint on the speed, scope and depth of reform in North Korea. It is with due consideration of this fundamental constraint that the analysis in this paper has been carried out.

Specifically, reformers in North Korea would like to avoid the adverse side-effects of the system-level transition in Eastern Europe and the former Soviet Union, such as sudden and deep recession, rising unemployment, growing poverty, inflation, and trade deficits (Murrell 1996). Such side-effects, if they appear, would be too much for the North Korean leadership to handle. On the other hand, North Koreans hope that reform will contribute to the consolidation of the growth potential of their economy and to increased international competitiveness so as to generate hard currency and attract foreign investment.

The transition experience in Europe and Asia reveals that there is great differentiation in post-reform economic performance despite the homogeneity of the economic liberalization measures adopted (Murrell 1996). This suggests that initial conditions greatly determine the

effectiveness of policies (Ickes and Ryterman 1995, K. Lee 1994, K. Lee 1993a, Chapter 4).

Somewhat alarmed by the divergence in transition economies, the North Korean leadership seems to have the pessimistic or overly cautious view that, without a minimal institutional, economic, cultural, social, and political endowment, dramatic changes in policy and the destruction of the old system will not be effective in spurring the desired changes in the economy. Thus, their reform model focuses on an open-door policy without much import liberalization and on domestic liberalization mainly in the consumer sector. This is considered similar to the so-called 'East Asian growth model' of South Korea and Taiwan.

This paper assesses both the current economic situation and past reform efforts and investigates possible reform packages and scenarios in North Korea. In doing so, it will rely on the reform experiences of other transition economies in Eastern Europe and Asia.

The next two sections contain a description of the North Korean economic system and an investigation of past reform efforts. This is followed by an assessment of the current economic situation so as to reveal the factors responsible for the current crisis and the continuing survival of the North Korean economic system.

Sections 5 and 6 consist of an assessment of the effectiveness and limits of the current reform measures in North Korea and an outline of several policy packages. They argue that the basic direction of the current North Korean reforms are correct insofar as they focus on export promotion, foreign direct investment, light industry, and agriculture. However, the intensity of the reform measures is not sufficiently radical. Domestic resources are being exhausted, while there is great difficulty in gaining access to external resources. In particular, the foreign exchange gap is the main bottleneck and needs to be eased through export promotion and foreign direct investment. In this light, the lifting of US economic sanctions, diplomatic normalization with the US, and South Korean collaboration are critical, since these would lessen the political uncertainty and provide the government with an entry for international capital and with markets.

Although the post-Kim Il-Sung government avoided a political crisis after Kim's death, the economy has been hard hit by the collapse of the former Soviet bloc, as well as the floods in 1995 and 1996. The situation is now extremely serious. Thus, even if the government survives the current crisis, there is no guarantee that it will continue to survive thereafter. Assuming that the 1997 crisis is overcome, the next few years will be critical. The government must try to generate a 'big push' from the outside that can furnish the system with enough momentum for recovery. Otherwise, collapse is certain. The government cannot rely on itself alone to revitalize the economy.

The success or failure of the next three years of reform will determine the future of North Korea. Failure could lead to the collapse of the government (hard landing), which would lead to radical reforms either through a new leadership, or through a South Korean take-over. Success could lead to wider and deeper reforms in the overall domestic economic system (soft landing).

This paper argues that the sudden fall of the government would not be good and that a soft landing would be better for all countries concerned. It appears certain that the government would tumble if foreign aid is halted. Thus, we should act quickly to improve the situation by taking unilateral initiatives and by urging the government to implement more radical policies. A soft landing strategy does not mean that we must act slowly. On the contrary, we must act as quickly as possible. There is so little time. International co-ordination and effort, especially South Korean initiatives, should be taken to move events towards this track.

2. NORTH KOREAN ECONOMIC SYSTEMS AND PAST REFORM EFFORTS

2.1 The evolution of the planning system and the reforms of the mid-1980s

Despite the alleged creativity of Kim Il-Sung, the 'founder' of North Korea, the country's economic system, especially the enterprise system, is essentially a variant of the centrally planned socialist economy with some additional incentive schemes, such as profit retention and worker bonuses (Kang and Lee 1992). In 1964 Kim Il-Sung decreed the implementation of

a 'unified and detailed planning' scheme to centralize further the allocation system in the economy. Despite the acknowledged resistance of state planning bureaucrats, Kim was personally engaged in setting up a very tightly balanced comprehensive planning system involving more than 100,000 different products.(H. Lee 1990).

The aim was to achieve more co-ordinated development through the control of economic activity, particularly to avoid an emphasis on 'major' goods to the detriment of secondary goods (*Economic Dictionary* 1985, page 334). However, the policy tended to impose additional rigidities on the economy. Since the first seven-year economic planning period (1961-70), chronic shortages and bottlenecks have impeded economic development (Chung 1983, page 177). Central planning was unable to cope with the growing complexities of the economy due to increasing problems related to information gathering and transaction costs.

Recognizing that the economy was over-centralized, the government launched important decentralization measures during the mid-1980s (Kang 1989; H. Lee 1990, P. Lee 1987). In November 1985, the number of central government ministries was reduced from 34 to 24. The power of local governments was extended through the reorganization of the Committee for the Guidance of the Provincial Economy into the Committee for the Guidance of Local Government and the Economy (Kang and Lee 1990, page 338).

Other important reform measures included a new focus on the financial accountability and relative autonomy of state enterprises, as well as on material incentives for labour, a reduced scope for central planning through the adoption of the associated enterprise system, and the promotion of foreign direct investment and the non-state sector in the areas of consumer goods and the service industry. Some of these reform programmes appeared to be influenced by the Chinese reform effort.

The economic reforms of the mid-1980s were preceded by or coincided with numerous overseas visits by North Korean officials, including Kim Il-Sung himself, who travelled abroad for the first time in 23 years. Intellectuals, peasants and workers were sent primarily to China and the East European socialist countries (see Kang and Lee 1990, pages 338-39). Reportedly, the Kim Il-Sung and his successor and son, Kim Jong-Il, had a first-hand look at China's open-door policy and economic reforms. They

were impressed enough to make glowing statements in admiration (Kang and Lee 1990, page 339). While recent North Korean reform efforts appear to copy those in China, actually they may owe more to the so-called 'Chollima mass movement' in the late 1950s that was inspired by the Great Leap Forward. Although the North Korean economic system was originally patterned on the Stalinist model, the Chinese influence on the government's economic policies has been increasingly important since the early 1960s.¹

2.2 The emergence of associated enterprises²

At the enterprise level, an important reform undertaken in July 1985 involved the use of associated enterprises (yeon-hap gi-eop in Korean, lianhe qiye in Chinese) on a wider scale. This implied a significant expansion in enterprise autonomy and a reduced scope for planning. By September 1986, there were reportedly 120 associated enterprises, of which 61 were controlled by the central government, while the remaining 59 were under the management of provincial authorities (P. Lee 1987, page 4).

There are two types of associated enterprises. One type involves the vertical integration of one key enterprise with others which have backward or forward linkages in production or technical areas. The other type involves the horizontal integration of several enterprises belonging to the same product group.

Under the former central planning system, intermediate goods were first shipped to state allocation authorities and then distributed to production enterprises. Vertical integration reflected an effort to reduce uncertainty and the transaction costs of detailed central planning by internalizing the allocation of intermediate goods within closely related groups of enterprises.³ The aim was to normalize production activities, and this emerged as an important item on the policy agenda because of the frequent production stoppages due to shortages in energy and material (C. Kim

¹ See Wickman (1981) and Brun and Jacques (1976) on the North Korean economic system before the mid-1980s reform.

² This section relies heavily on Kang and Lee (1992).

³ See Williamson (1975) and Chandler (1962) on the advantages of vertical integration and the so-called 'M-form structure' as a type of enterprise organization. A discussion of this issue in the case of Chinese enterprises can be found in K. Lee (1991), Chapter 8.

1986, page 75). Meanwhile, horizontal integration seems to have been designed to eliminate 'departmentalism' or 'localism', that is, the practice whereby each enterprise or local authority was pursuing their own partisan or local interests at the expense of the common interests of the wider community (C. Kim 1986, page 76, S. Lee 1986, page 51).

The vertical and horizontal integration of enterprises was accompanied by an increase in enterprise autonomy within the enterprise associations, if not among the individual enterprises. The associated enterprises are now regarded as independent planning, production and executive units and are allowed to sign purchasing and marketing contracts with each other without going through state allocation agencies (C. Kim 1986, page 71). This has reduced the number of enterprises the state deals with. It has also lowered the number of links with mid-level state agencies.

Clearly, the move towards associated enterprises represented a retreat from the detailed central planning. Kim acknowledged the difficulties of detailed planning given the increasing complexities in production linkages among enterprises and factories (C. Kim 1986, page 75). Now enterprises are supposed to solve their own input supply problems.

However, associated enterprises face co-ordination problems among the member enterprises due to ambiguities in property rights (both income and control rights). For instance, C. Kim (1986) states that, while each member enterprise is subject to control and planning at the association level, each is also supposed to maintain independent accounting and relative autonomy. Co-ordination problems among member enterprises exist since integration has not been based on clearly defined property rights, but was carried out administrative measures.

The experience was similar in China during efforts to implement associated enterprises beginning in the mid-1980s, although a number of such enterprises have been emerging spontaneously in the 1990s. In the 1980s, joining an enterprise group did not change the relationship between the participating enterprises and their supervisory state entities, and each affiliated enterprise continued to be owned by its supervisory entities and subject in varying degrees to their control. Thus, each enterprise tended to give priority to the needs of its supervisory state entities, as opposed to those of its enterprise group (Zhang 1988). In consequence, the co-ordinated use of production capacities and resources was not possible, and

this hampered efficient resource allocation within the groups. For instance, there was no group-level accumulation of funds for investment purposes since each supervisory state authority allocated funds only to its own subordinates (Liu and Hu 1988). Therefore, the transformation of the enterprise group into a more integrated whole was sought through the adoption of the shareholding system. This was an effort to clarify the property rights among member enterprises and to reduce the role of state authorities from that of manager to that of shareholder (Lee and Mark 1991).

However, the North Korean government has not yet shown any sign of implementing such radical reform measures like transforming state enterprises into shareholding corporations, which is regarded as a stepping stone to privatization. Moreover, the vertical or horizontal integration of enterprises does not seem to represent marketization. Rather, it appears to be anti-market and merely a transfer of authority from one tier to another in the overall planning hierarchy. Actually, each enterprise belonging to an association is supposed to be under the direct control of association-level planning (S. Lee 1986, page 50). From the centre's perspective, it would be easier to control directly a small number of big units without going through mid-level links than it would be to control a large number of small enterprises.

In sum, the North Korean associated enterprises strongly resemble the *Kombinat*en in the former German Democratic Republic, in which vertical and horizontal integration was used to improve the planning system rather than institute market reforms (Andreff 1989). Thus, the North Korean experience is different from the Chinese one in that Chinese associated enterprises have emerged more or less spontaneously in parallel with substantial marketization in the economy, especially during the late 1980s.⁴ In our opinion, the North Korean associated enterprises should be

⁴ In China, associated enterprises or enterprise groups have emerged since the mid-1980s. They are called 'qiye jituan' or 'general corporations' ('zonggongsi'). The relations among group firms are also diverse, ranging from tight integration based on parent and subsidiary relations to a very loose integration which is simply based on intensive mutual transactions (Gu 1988). Komiya (1987) argues that most Chinese firms, which are called 'chang', meaning factory in Chinese, cannot be considered firms in the modern sense. Because of their function and their level of autonomy, they are more like the factories which belong to corporations in Japan. However, this new form of enterprise – the enterprise group – can be considered closer to modern corporations (see K. Lee 1991, Chapter 8).

viewed as having a dual nature, involving elements of both centralization and decentralization. Actually, the associated enterprise system is a good model for a framework which combines central guidance and enterprise creativity (S. Lee 1986, page 48).

2.3 State enterprise reform⁵

Rather than fully confiscating the profits realized by state enterprises, former socialist economies in the Soviet Union and Eastern Europe always allowed the retention of a portion of profits by enterprises for incentive purposes. North Korea has also had a profit retention system for state enterprises. This is quite different from the case of China, where the profit retention system was undertaken only in the late 1970s as one of the most representative reform measures.

If we examine the fluctuations in profit retention rates in North Korea since the early 1950s, one noticeable fact is the decrease in the rate between the early 1960s and the mid-1970s and the sudden increase in the mid-1980s.⁶ Considering that the profit retention rate is one measure of decentralization, these fluctuations correspond to moves towards centralization or decentralization in the planning system. Beginning in the early 1960s, there was a period of centralization through so-called 'unified and detailed planning'. This process was expected to reduce enterprise autonomy and hence the enterprise profit retention rates. In contrast, the mid-1980s appears to have ushered in a period of decentralization, and the portion of profits that enterprises could retain was raised from 20 per cent to 50 per cent (P. Lee 1987, page 4).

In December 1984, the Provision on the Independent Accounting System was revised, giving enterprises greater autonomy (Kang 1989). Three basic principles were contained in the revision document that hinted that some new elements would be introduced into the North Korean industrial structure (see IDE 1986). First, because of a perceived need for an effective combination of state planning and commodity-money relations, it introduced economic levers such as costs, prices and profit. Considering that the term 'commodity-money relations' was used as an ideological

⁵ This section relies heavily on Kang and Lee (1992).

⁶ According to Table 1 in Kang (1989), the profit retention rates were 10 to 90 per cent in 1960, 13 to 50 per cent in 1962, and 0 to 20 per cent in 1972. The rate was raised to 50 per cent in 1985.

substitute for 'markets' in socialist economies, including China, this indicated that there would be a mix of central planning and markets. Second, enterprises were now supposed to cover their own expenses and to contribute to state revenue. Third, enterprises were to be offered political and material incentives, while performance would be evaluated according to the planning quotas set for them.

According to the revised provision, enterprises could retain part of their profits in two ways: as enterprise funds (gi-eop gi-geum) and as 'prize' funds (sang-geum gi-geum).

Enterprises can retain a portion of the plan-quota profits and extra-quota profits as enterprise funds if they surpass the profit plans, transfer a predetermined amount of the state's share of the profits to the state, and remit to the state a portion of the working capital which is supplied by the enterprises themselves. (The state still provides enterprises with a major portion of their working capital.) Accumulated enterprise funds can be used for (1) production expansion and technology development (production development funds) and (2) worker welfare and cultural projects (welfare funds).⁷

The main emphases in the revised provisions is on financial accountability and the independence of state enterprises. This also reflected the serious fiscal deficits due in part to heavy enterprise subsidies. Merrill (1989, page 10) states that numerous articles appeared in the North Korean media warning enterprise managers that they were now on their own and would get no sympathy (and more importantly, would be held accountable) if they failed to meet production goals.

Efforts to disengage state enterprises financially from the state administrative budget were common in socialist economies. In North Korea, such measures did not have much effect in hardening the budget constraints on state enterprises, and hence they did not go very far in improving economic efficiency. There were two major problems: the ex ante arbitrariness of the profit remission quota and the ex post weak enforceability of the contract. There was no objective basis for determining the appropriate level of the profit remission quota. Unexpectedly large

⁷ The revised provision also states that a portion of production development funds can be used to boost the monetary value of certain 'prizes', such as the 'socialist competition citation' and the 'innovator citation'.

profits often led to arbitrary requests from the state authorities to submit more than the contracted amount of profits, whereas marginal profits or even losses elicited arbitrary generosity by state authorities, especially when accumulated enterprise funds were too small to cover the losses (Lee and Mark 1989).

The renewed emphasis on the financial independence of state enterprises indicates that, in North Korea as in other socialist planned economies, the soft budget constraint was a problem for state enterprises. Given that no additional innovative measures were suggested in the 1984 revision and given what is known from the experiences in other countries with similar measures, we can infer that there was little progress in solving the problem. Indeed, the managers of firms outside the capital, Pyongyang, spent most of their time in Pyongyang negotiating with state authorities to obtain stable supplies of needed intermediate materials and subsidies or preferential tax treatment.⁸ To the extent that such bargaining is successful in solving the financial problems of firms, enterprises will be less sensitive to real economic efficiency (Kornai 1986).

One symptom of the soft budget constraint problem is the runaway demand for input. Such unconstrained demand occurs because firms under the soft budget constraint are less sensitive to the financial costs of input. Although excessive input demand and hoarding aggravates material shortages, they are also due to such shortages. In other words, shortage and runaway demand form a vicious circle in socialist economies. An article by a North Korean scholar (Hyun 1989) indirectly confirms the existence of a hoarding problem in North Korea. Discussing the efficient use of working capital and the way to reduce the capital circulation period, he argues that enterprises should always check whether they are holding an optimum level of circulating capital in the form of intermediate inputs. Any excess inputs should be immediately surrendered to the state allocation agency (ja-jae sang-sa).

The most direct and simple evidence for the soft budget constraint problem in socialist economies is the total lack of bankruptcies among state enterprises. When enterprises in North Korea incur losses, the state usually

⁸ Information based on an interview with North Korean scholars in 1990.

provides special loans.⁹ If losses persist over several years, a major reorganization of the enterprises is undertaken.

2.4 Marketization and privatization in agriculture

After the establishment of an independent government in 1946, the North Korean leadership conducted land reforms to lay the basis for eventual socialization of the agricultural system. Except the right of peasants to cultivate, the land reform abolished private ownership. Collectivization began at an experimental level as early as 1953 and was completed between 1955 and 1958. During the later stages of collectivization, the focus was on the creation of large-scale collective farms. On average, each collective farm consists of about 300 households and cultivates about 500 hectares. There are about 3,300 collective farms nationwide. Collective farms account for about 80 per cent of the total agricultural land, and state farms take up the remaining 20 per cent (W. Kim 1994).

Up to the mid-1970s, each peasant household was officially permitted to cultivate 'private' plots or 'kitchen plots' (tut-bat) of 30 to 50 pyong (1 pyong = 3.3 square metres). This was changed to 15 to 30 pyong in the mid-1970s. The productivity of private plots is two to three times higher than that of collective fields (W. Kim 1994). Cash crops and vegetables are grown on private plots, and the output is sold on peasant markets or in local retail shops. A switch to the intensive cultivation of higher yield crops such as corn and certain types of beans – accompanied by the illegal diversion of fertilizers and insecticides from collective farms – has boosted the productivity of private plots. In some cases this is now five times higher than the productivity on collective farms (W. Kim 1996).

Because peasants were left to solve their own food problems, one other kind of private plot, the 'petty plot' (so-to-ji or duigi-bat), was also tolerated (Y. Kim 1996a). Petty plots were usually located on newly cultivated land in hilly and mountainous areas. Not only peasants, but also workers, officials, soldiers and even party professionals reportedly use petty plots to grow food for their own consumption and for bartering in exchange for other necessities. In some areas, petty plots are as large as 1,000 pyong (Y. Kim 1996a). The cultivation of petty plots started to become very popular around 1986. This helped to reduce black market food prices by 30 per cent (Kwon 1996). Although there is a report that

⁹ Information based on an interview with North Korean scholars in 1990.

petty plots were officially forbidden in 1988, it seems that they are still popular, especially because of the food shortages.

The tendency towards private agriculture is an example of spontaneous marketization and privatization. Likewise, collective farms are apparently being run almost as though they were a group of independent peasant household farms (W. Kim 1994). As of 1984, peasant agricultural markets were also permitted in urban areas, including Pyongyang (Kwon 1996).

Official agricultural policy is sometimes confusing. For instance, in 1987 an economist who argued in favour of the household contract system, as well as his supervisor, was severely reprimanded (*Chosun Il-bo Daily*, cited in Y. Kim 1996a). Meanwhile, in 1994 an experiment was carried out involving the integration of several collective farms into a larger state farm or associated agricultural enterprise (Y. Kim 1996a, W. Kim 1994).

While these incidents indicate that collectivized agriculture is being maintained, there are recent signs of change. A so-called 'production team contract system, which is different from the former 'production team management system', has reportedly been introduced (Y. Kim 1996a). One of the most important features of this new system resides in the fact that state procurement targets are set based on average production over the previous three to ten years. Moreover, any above-target production can be disposed of freely by the team. Given that agricultural production has been slumping over the last few years, the new system is expected to have strong incentive effects. Although the system differs from the more radical household contract system, it has the clear potential to lead to significant change.

2.5 Marketization and semi-privatization in light industry

In North Korea 'light industry' refers to the consumer goods industry, which produces about 30,000 different types of consumer items. There are 4,041 firms and 70,000 workers in light industry (UNIDO 1996).. Of these firms, 88 per cent are state owned, while the remaining 12 per cent are collective enterprises. These firms can be classified into 'central firms', which are under the supervision of the State Commission for Light Industry, and 'local firms', which are under the supervision of the Ministry of Local Industry. The central firms produce clothes and related items, whereas local firms produce food and other essentials.

Although light industry is often praised by the leadership for its contributions in the supply of consumer goods, job creation and the generation of foreign exchange through exports, it is still very underdeveloped (UNIDO 1996). Even those firms which are considered more flexible are under strict central or local government control in procurement, pricing and marketing. Furthermore, since many enterprises are responsible to different ministries or commissions, co-ordination and co-operation among them are difficult despite their common ownership by the state. This is often the cause of the inefficient utilization of production capacity.

Some reforms have been introduced in the light industry sector since the mid-1980s. For example, Kim Jong-Il initiated the so-called 'August 3rd Campaign' in 1984. This campaign encourages the non-state sector production of consumer goods through the use of scrap materials from state enterprises, locally available resources and waste products (H. Lee 1990). It has promoted the appearance of 'in-house' work teams in factories and collective farms for the production of consumer essentials using by-products and waste materials (Kwon 1996, KUB 1994, page 85). Transactions involving the output of these teams is estimated to account for as much as 10 per cent of the volume of transactions of state-owned retail sales channels (KUB 1994, page 85). These reforms are all intended to stimulate private production and household purchasing power.

3. THE ESCALATING CRISIS SINCE THE EARLY 1990s

3.1 Overall economic performance

The North Korean economy recorded negative growth rates over a six-year period, from 1990 to 1996. Over this period, the size of the economy was reduced by more than 20 per cent. Two consecutive years of flooding in 1995 and 1996 were especially disastrous and have had a serious effect on agricultural production capacity. It is within this context that the fall of the government is now often being predicted.

However, before the big floods of 1995, industrial production had been recovering from the sudden crisis of 1991-92 caused mainly by external economic factors (Table 1).

TABLE 1
OVERALL ECONOMIC PERFORMANCE BY SECTORS IN
NORTH KOREA, 1990 (ANNUAL GROWTH RATES IN PERCENTAGES)

	1990	1991	1992	1993	1994	1995
Nominal GNP	23.1	22.9	21.1	20.5	21.2	22.3
GNP deflator	80.2	83.9	83.7	84.9	89.4	100.0
Real GNP (in 1995 prices, billion \$)	28.8	27.3	25.2	24.1	23.7	22.3
GDP Growth (% annual average)	-3.7	-5.2	-7.6	-4.3	-1.7	-6.0
Population I (1000)	21412.0		22336.0		22953.0	23261.0
Population II (1000)	21711.0	22062.0	22375.0	22677.0	22953.0	23261.0
GNP per capita (1995 prices)	1326.1	1237.1	1127.0	1064.2	1033.6	958.7
GNP per capita (current prices)	1064.0	1038.0	943.0	904.0	923.6	958.7
Growth by Sectors (%)						
Agriculture & Fishery	-10.2	2.8	-2.7	-7.6	2.7	-10.5
Mining	-8.5	-6.8	-6.1	-7.2	-5.5	2.3
Manufacturing	-1.5	-13.4	-17.8	1.9	-3.8	-5.3
light	-6.2	-4.4	-7.3	5.0	-0.1	-4.0
heavy	-0.4	-15.8	-21.0	-4.2	-5.2	-5.9
Public Utilities	-2.2	-4.5	-5.7	-8.7	4.2	0.1
Construction	5.9	-3.4	-2.1	-9.7	-26.9	-3.2
Services	0.3	2.5	0.8	1.2	2.2	-1.5
Foreign Trade (million \$)	4720.0	2720.0	2660.0	2641.0	2108.0	2052.0
as % of Nominal GNP	20.4	11.9	12.6	12.9	9.9	9.2
Exports	1960.0	1010.0	1020.0	1021.0	839.0	736.0
Imports	2760.0	1710.0	1640.0	1620.0	1269.0	1316.0
Trade Balance	-800	-700	-620	-599	-430	-580
Gross Foreign Debts (billion \$)	7.86	9.28	9.72	10.32		11.83
as % of GNP	34.00	40.50	46.10	50.30		53.00
Exchange Rate (Won/\$)				2.15		2.05

From 1990 on, GNP growth rates and nominal GNPs are estimates of the Bank of Korea using the SNA method. GNP per capita in current prices are estimates of the Bank of Korea. Before 1990, nominal and constant GNP are estimated by the Korean Unification Board. Other statistics are estimates by the Bank of Korea, unless otherwise noted. Population: 1990 figure from Eberstadt and Banister (1991), cited in Cho (1996). 1995 and 1994 are from the Bank of Korea. Population series II are derived by dividing nominal GNP by per capita GNP. Foreign trade figures are estimates of Korea Trade Promotion Agency.

This performance trend suggests that when the economy was badly affected by the floods in 1995, it had been on the road to recovery from the shock of separation from the Soviet economy. In 1990, North Korean trade with the Soviet Union stood at \$2.6 billion and accounted for more than half of the total trade of the country. This was reduced to a mere \$0.5 billion in 1991. Furthermore, accounting in this trade became based on hard currency, and existing trade agreements became ineffective.

The provision of oil from the former Soviet Union to North Korea dropped from 440,000 tons in 1991 to 40,000 tons in 1993. The situation in the supply of wood products, textiles and other intermediate goods was similar. In other words, there was a shift in the exports by the former Soviet Union to North Korea away from strategic materials and intermediate goods, as well as critical technical aid and equipment for several mammoth projects. Likewise, there was a sudden decrease in factory operations and the use of transportation vehicles. This caused additional damage to the economy through supply-side multiplier effects.

This does not mean that the current economic crisis in North Korea should be attributed to external factors alone. There was a long-term trend towards gradual economic deterioration, that is, the sudden adverse external changes exacerbated an already bad situation (Table 2). Unfortunately, North Korea has few domestic resources to help it exit from the current downturn. It is thus natural that the government is seeking assistance through an open-door policy.

TABLE 2
LONG-TERM TRENDS IN ECONOMIC GROWTH IN NORTH KOREA

Period	Average Annual Growth Rates
1961-67 (1st 7-year plan)	8.6%
1971 (6-year plan)	6.0%
1978-84 (2nd 7-year plan)	4.5%
1987-93 (3rd 7-year plan)	-1.7%

Sources: Estimates of the Korean Unification Board, the Government of Korea, cited in Lee and Choi (1996).

3.2 From food crisis to famine

Food production in North Korea has been declining, with some slight fluctuations, since around 1989, and since 1992 annual food shortages have amounted to more than one million tons (Table 3). The response to this crisis has been threefold: more food imports, the forced reduction of food consumption, and adjustments using food reserves.

Until 1991, the gap could be filled more or less through food imports. However, in 1992, despite imports, estimated food shortages surpassed one million tons. In 1992 and 1993, most of the food shortage could be offset through reductions in food rations and consumption. Through campaigns which promoted, for instance, the eating of only two meals per day, 1 to 1.5 million tons of food were saved (Chun and Kim 1996, Lee and Choi 1996). In 1993 and 1994, this forced reduction in food consumption proved an inadequate measure, and the remaining gap had to be filled through the use of food reserves (Chun and Kim 1996).

Panel B in Table 3 shows the situation in the 1996 food year (November 1995 to October 1996) and the 1997 food year (November 1996 to October 1997). For 1996, the food demand and flood damage estimates appear to be exaggerated and the estimates of international organizations and of the South Korean government are fairly similar for total demand and for the production shortages, but differ concerning the actual production levels. For the latter, the North Korean estimates are between those of FAO and the South Korean government. In any case, both the UN and the South Korean government estimate the production shortages at about two million tons.

While it may be true that food reserves are near depletion as the North Korean authorities have officially reported to the UN, the food shortages seem to have been somewhat offset by imports and international humanitarian aid. If North Korea imports about 1 to 1.5 million tons of food in the proportion of three tons of rice for every seven tons of corn, the import bill reaches more than \$200 million. The volume of food imports and the import bill were, of course, much larger in 1996 than they had been in previous years. However, they seemed to be within a manageable range (Chun and Kim 1996, W. Kim 1996). North Korea regularly receives \$100 million to \$800 million annually from Japanese-Koreans. Moreover, the scale of military exercises, which require the consumption of oil, have been reduced. The 1996 food year passed without reports of large-scale famine.

TABLE 3
SUPPLY AND DEMAND IN FOOD GRAIN IN NORTH KOREA
(1000 METRIC TONS)

A. Trend over 1989							
	1989	1990	1991	1992	1993	1994	1995
Demand	6000	6200	6400	6500	6580	6670	6720
Food	4219	4359	4500	4570	4627	4690	4725
Non-Food	1781	1841	1900	1930	1953	1980	1995
Supply	5901	6343	6081	5347	5358	4484	5018
Output	5210	5482	4812	4427	4268	3884	4125
Net Imports	691	861	1269	920	1090	600	893
Shortages	99	-143	319	1153	1222	2186	1702

Output in supply refers to the production of the preceding year. Sources: taken from Chun and Kim (1996), Table 1. Original estimates are from import figures, which are from W. Kim (1995) and UN.

B. Estimates for 1996 and 1997				
	1996	1996	1996	1997
	North Korea Official Report to UN	FAO/ WFP	South Korean Govt. Estimates	FAO/ WFP
Demand	7639	5988	5530	5400
food	4869	3688		3800
non-food	2770	2300		1600
Production	3764	4077	3450	2840
Original Expectation	5665	4967		4300
reductions by flood	1901	890		300
reductions by early consumption				1160
Production Shortages	3875	1911	2080	2360
Net Import			1150	

Sources: 1996 figures are taken from Chun and Kim (1996), Table 2. Estimates by the South Korean government have taken into account forced consumption reductions by the North Korean population. Otherwise, normal demand would be 6,730,000 metric tons. The net Import figure is an estimate by the National Unification Board of the Korean government. 1997 FAO/WFP estimates are based on actual visits to North Korea in Fall 1996 as reported in FAO/WFP (1997).

The situation has been worse in the current 1997 food year (FAO and WFP 1997). For one thing, there was more flooding in 1996. Although the floods were on a smaller scale than they had been during the previous year, the effect was at least as devastating because the 1996 floods occurred before the recovery was complete from the 1995 floods. Furthermore, the supply of agricultural inputs was more difficult in 1996 than it had been in 1995, and agricultural lands were seriously degraded. All of these factors resulted in much lower grain outputs in 1996 (the 1997 food supply) relative to 1995. Supply shortages climbed to 2.4 million tons in 1997 compared to 2 million tons in 1996. There are many reports pointing to the possibility of a major famine this year. Some have predicted that roughly seven million out of the total population of 21 million people could face starvation.

However, such predictions may overlook the existence in North Korea of a second economy in agricultural production and consumer goods that is usually not recorded in official statistics. Aside from the officially permitted private plots and kitchen plots, it is reported that even non-farming households often cultivate 'black' private plots ('toi-gi-bat' or 'so-to-ji'). According to a North Korean agricultural technician who had defected, people in his region were able to produce, by working on their black plots only two or three days per week, an amount of grain (200 kilograms) roughly equal to the official annual ration of 170 kilograms (Y. Kim 1996a). According to another defector, these black plots were cultivated to produce food not for personal consumption, but to sell for money or exchange other goods. This suggests that the food shortages may not be serious, especially among peasants (Y. Kim 1996a). The government either ignores, or implicitly allows these illegal black plots to exist along with the officially permitted private plots of 30 pyong per household, because the black plots lessen the economic hardship of the people.

3.3 Between collapse and survival

Economic collapse can be defined as a condition in which an economy cannot maintain the simple reproduction required to generate subsistence payment for the direct producers, some surplus for the non-producing leaders, and investment funds at a level greater than the amount of depreciation.

Given this description, it can be argued that the North Korean government is close to collapse, and that it does not have the ability to recover from the current crisis without external assistance. While the system is still in serious need of a significant 'big push' from the outside, the government has been resorting to various survival tactics such as the implicit approval of the second economy and spontaneous economic solutions, the suppression of potential political enemies and defectors, and the use of persuasion to retain the loyalty of those who are the most cooperative and close to the leadership (Y. Kim 1996a). Nonetheless, gaps are being filled through the use of external resources, such as food aid, loans and other foreign funds.

Total collapse requires both political and economic shocks. In this sense, the North Korean government is well situated relative to its predecessors in Eastern Europe. In contrast to those who thought Kim Jong-Il would not last very long, the government under his de facto leadership continues in power two years following the death of Kim Jong-Il's father. Furthermore, the link between economic difficulty and political crisis appears to be weak in North Korea, unlike the case among its predecessors in Europe. North Korea is more isolated in political and economic terms, and the tradition of civil society is very weak in the Korean and East Asian tradition. In other words, it is very difficult to organize a power or authority which can act effectively against the state. Thus, unless the current leadership disappears in the natural course of events or is overthrown by a coup, the collapse of the government is unlikely.

Finally, an important neighbour, China, which is an emerging economic power on an international scale, would probably not sit idly by if North Korea seemed about to collapse for economic reasons. Even the US and South Korea have good reasons to delay such a collapse, which would lead to huge economic costs and unwanted political uncertainty. Moreover, unlike the case in the Soviet Union, nationalism will not tend to encourage the disintegration of the state.

Despite these favourable elements, the situation is worsening. Thus, even if the government survives the current crisis through external help, this will not guarantee its long-term or even medium term survival. Assuming that the current crisis is overcome, the government will have at most three years to see if a 'big push' from the outside can give the system sufficient

momentum for recovery. Otherwise, total collapse is certain, since the government alone does not have the ability to revitalize the economy.

4. THE LEGACY OF THE KIM IL-SUNG ERA AND THE POTENTIAL FOR GROWTH

4.1 Population structure

In 1990, the total population of North Korea was 21.4 million, of which 14.4 million were between the ages of 15 and 64 (Eberstadt and Banister 1992, Chun 1996, Table 16). The proportion of the population under 15 years of age is a relatively high 29.4 per cent. The labour force participation rate peaked at 72.4 per cent in 1985, which is about 10 percentage points higher than the corresponding rate in South Korea (Chun 1996, Table 18).

According to official North Korean figures, the urbanization rate measured by the share of the urban population in total population was 59.6 per cent in 1986 (Chun 1996, Table 8). Although the method used to calculate this rate is not clear, the fact that many urban workers and students are sent to rural areas as seasonal labourers suggests that the high urbanization rate is not far from reality.

4.2 Employment structure

In 1989, primary industries accounted for 35 per cent of the total labour force of 12.5 million (Table 4). Although the official North Korean estimates furnished to Eberstadt (1995) show a figure of only 25.3 per cent, they are based on questionable methods of calculation. For instance, they assume that the entire population over 16 years of age is employed. Thus, some of those who are classified as peasants may not really be part of the agricultural labour force (Eberstadt 1995).

Among secondary industries, the imbalance between light and heavy industries is very serious. In terms of value added, in 1990 light industry accounted for around 6.9 per cent of GNP, whereas heavy industry accounted for 28.1 per cent. In terms of employment, two different estimates are possible. First, taking the official North Korean figure for the share of secondary industry in total employment (57.9 per cent), one can

then calculate the absolute number of those employed in heavy industry knowing that the total employment in light industry is about 700,000 (UNIDO 1996). This gives the relative shares of employment in light and heavy industries as a ratio of 1 to 6.6 ('Estimates II', Table 4). Second, using the employment share of the secondary sector (47 per cent) that has been estimated by researchers at the Korea Development Institute (KDI), a government think-tank, the ratio of the employment shares of light and heavy industries appears to be 1 to 4.6 ('Estimates I', Table 4).

Both of these estimates reveal a very interesting aspect of the North Korean economy, that is, the wide discrepancy between the respective shares of light and heavy industries in employment and value-added. Thus, although heavy industry employs from 4.6 to 6.6 times more workers than does light industry, it produces only 4.1 times more output than does light industry. In other words, labour productivity in heavy industry is much lower than that in light industry. This seems quite strange given the higher capital-labour ratio (Panel B, Table 4). If this is true, it suggests that some of the labour force should be transferred from heavy industries to light industries or that the production efficiency of the heavy industries should be greatly enhanced.

In any case, if the ratio of 1/6.6 appears too high, this implies that the official North Korean figures on primary sector shares are too low and that those on the secondary sector are too high. This seems to be true, and the KDI estimates seem to be more accurate. This implies that there is still room for more migration from agriculture to manufacturing. The ratio of the shares of primary industry in employment and in GNP is 35 to 26.8. If a ratio of 1 to 1 is considered 'natural' or in balance, then the 35/26.8 ratio means that some workers should switch from agriculture to secondary industries.

Finally, according to the estimates of the International Institute for Strategic Studies, the military represents 5.2 per cent of the total population. This is one of the highest such shares in the world and is comparable only to the case in Iraq (IISS 1990; cited in Chun 1996). The share of military expenditures in the government budget is also very high at 35 per cent.

TABLE 4
INDUSTRIAL STRUCTURE IN NORTH KOREA

	Production		Employment I		Employment II	
	Shares (1990)	Values (mil.\$)	Shares (1989)	1000 person	Shares (1989)	1000 person
1. Agriculture	26.8%	6190.8	35.0%	4381	25.3%	3167
2. Secondary Sector	50.6%	11688.6	47.0%	5883	57.9%	7247
Mining	7.8%	1801.8	7.8%	976	7.8%	976
Manufacturing	35.0%	8085.0	31.4%	3930	42.3%	5295
light Industry	6.9%	1593.9	5.6%	700	5.6%	700
heavy Industry	28.1%	6491.1	25.8%	3230	36.7%	4595
Construction	7.8%	1801.8	7.8%	976	7.8%	976
3. Tertiary Sector	22.6%	5220.6	18.0%	2253	16.8%	2103
Sum, GNP, Total Employment	100.0%	23100.0	100.0%	12517	100.0%	12517

B. Labour productivity (\$/worker)

	Estimate I	Estimate II
Light industry	2277.0	2277.0
Heavy industry	2009.4	1412.7

C. Relative Ratios

	<u>Production Shares</u>	<u>Employment Share I</u>	<u>Employment Share II</u>
Light industry	1.0	1.0	1.0
Heavy industry	4.1	4.6	6.6

Estimate I is derived using the employment shares of the three sectors as estimated by the KDI and reported in H. Chun (1996). The light industry employment number (70,000) provided in UNIDO (1995). Also used is Estimate II is derived using the employment shares of the three sectors as provided by the North Korean government to UN and reported in Eberstadt and Banister (1992). Production shares and values are those given in H. Chun (1996, table 21). Total employment (12517) as provided by the North Korean government to the UN and reported in Eberstadt and Banister (1992) and also in H. Chun (1996). It is assumed that both in mining and construction, the shares in production values are the same as the shares in employment.

4.3 Foreign trade and debts

Over the last ten years, the value of North Korea's foreign trade has plummeted. After peaking at \$5.2 billion in 1988, it fell to \$2.1 billion in 1995. One of the most important reasons for the decrease was the disintegration of the former Soviet bloc. The biggest drop occurred between 1990 and 1991. As the former socialist economies began to undergo system transition and experience serious economic recession and since North Korea's trade became based on hard currency transactions rather than bartering, North Korean trade with these countries, especially Russia, shrank. In 1995 the trade dependence ratio (the ratio between total trade volume and GNP) was only 9.2 per cent. As North Korea continued to experience trade deficits, its accumulated gross 1995 foreign debt stood at \$11.8 billion. Thus, the ratio of gross debt to GNP was 53 per cent.

4.4 Are there positive legacies for future growth?

The positive legacies of North Korea's Kim Il-Sung and China's Mao are similar. While the growth performance of the Chinese economy under Mao did not reach its full potential, one important legacy of the Mao era was the consolidation of advances in the provision of food, health care and primary education for the rural population (Naughton 1991). Likewise, in North Korea the government has developed a solid infrastructure in education, health care and the supply of basic necessities. However, this infrastructure is now functioning poorly because of budget constraints. A more reliable legacy may be the development of human capital, since primary and secondary education are universally available in North Korea. The workers have a reputation for discipline and reliability.

However, more capital and better management skills are needed. The light industry sector is small, while the heavy industry sector is excessively large. Foreign trade and investment are inadequate. The defence industry is over-developed. Nonetheless, these insufficiencies suggest that North Korea may have 'late-comer' advantages. Adjustments could lead to substantial growth. Of course, such a scenario would require a market-oriented economic system, an open economic environment and sound policies.

5. RESPONDING TO THE CURRENT CRISIS AND DISCOVERING LONG-TERM SOLUTIONS

Economic reforms do not have immediate, positive effects, as the experience in Eastern Europe demonstrates. Reform is a long-term process (Murrell 1996). Since the North Korean economy is in deep crisis, both short-run anti-crisis measures and long-term reform policies should be implemented.

5.1 Anti-crisis measures

The current crisis in North Korea is characterized by two main problems: there is a danger of famine, and there are general production declines associated with supply-side multiplier effects. The supply-side multiplier effects revolve around the shortages in energy and other basic intermediate materials and the poor moral among labourers that has been caused by shortages in food and other basic consumption goods. These two supply-side multiplier effects can be attributed principally to the lack of the hard currency required to pay the import bill.

Anti-crisis measures must deal with these two features. The immediate concern is the feeding of the population. Because of the good harvest in 1996, the situation should improve during the 1997 food year. However, food imports or the equivalent in international aid will still be needed, though less than one million tons would probably be sufficient. More hard currency to pay the food import bill must be earned through exports or international borrowing. Supply-side measures in agriculture should include more encouragement for the use of private plots in rural areas and for market transactions involving consumer products. Spontaneous small-scale border trade by individuals for consumption goods and food should also be explicitly allowed. To secure food supplies, the modernization of production technology and a stable supply of fertilizer should be priorities. This will also require hard currency.

Secure energy supplies are critical for solving the problem of the reduced production associated with the supply-side multiplier effects. This means that hard currency must be available to pay for oil imports and the cost of the modernization of coal mining. The current energy crisis, especially the shortages in electricity, is due to the lack of coal for thermal power plants, and the main problem with the coal production facilities is the outdated technology.

5.2 Longer term reform goals and strategies

Long-term reform policies must also be launched. These policies should aim at three goals. First, the economy should be liberalized, and markets should be fostered in order to generate competition and the efficient allocation of resources. Second, modernization and industrial restructuring are needed to raise productivity. Third, stabilization is required in order to reduce the cost of transition.

The government should focus at an earlier stage on the liberalization of internal consumer markets, private sector entry and foreign investment (De Melo, Denizer and Gelb 1995). The liberalization of foreign trade should focus on the promotion of exports. Sudden import liberalization would aggravate the hard currency shortage by creating trade deficits. Thus, import liberalization should be gradual and depend on the progress in exports, as the experience of China, Japan, South Korea, and Vietnam shows.

In the marketization of the domestic economy, the choice is between the reform (including privatization) of old economic entities and the entry of new ones (K. Lee 1994). The liberalization of internal markets should probably rely primarily on private sector entry. Because marketization increases the number and the share of market-oriented economic entities, Keun Lee (1993a, 1994) argues that the entry of new economic entities is always easier than the transformation of old plan-oriented economic entities into market-oriented ones. This pattern is apparent not only in China, but also in the transition economies of Eastern Europe, where private entries have played a decisive role (Murrell 1996, Gomulka 1994). Many empirical studies confirm that there are significant differences in performance between new private firms and all others and that there are only marginal differences between state-owned firms and privatized ones (Brada and Singh 1994, Ickes and Ryterman 1995, Murrell 1996).

Only state enterprises which consistently show significant improvement in performance are acquired by foreigners (Carlin, van Reenen and Wolfe 1994). Therefore, the government should rely more on individual peasant farms, small-scale private firms, and foreign ventures. Actually, the government seems to be going in this direction.

Modernization and industrial restructuring should focus on the replacement of outdated production facilities. This will require hard

currency. Efficiency should be raised through the transfer of more resources from heavy to light industry. Thus, modernization should also focus on new production facilities in light industry, so as to leverage the international competitiveness of the light industry sector and generate hard currency. Also, economic resources should be transferred from the military goods sector to the civilian goods sector.

Until the new private sector grows sufficiently strong to be able to absorb much of the labour force, an overly rapid restructuring of the state sector should be avoided. However, rather than carrying out numerous experiments in an attempt to increase the autonomy of state enterprises which have generally failed, as has been done in China (K. Lee 1993b), the government should attempt from the outset to transform state enterprises into share-holding companies. For example, state enterprises could invite foreign investors to act as partners in the so-called 'one factory, two systems' approach, which combines old production sites with new management and technology and additional capital. This approach has been effective and popular in China, where the establishment of new firms with foreign partners is too costly because of the lack of adequate financial resources (K. Lee 1996). Through this approach, entire companies can be transformed into foreign joint ventures or they can create subsidiaries. Once state enterprises have become share-holding companies, it will be much easier to implement more radical reforms, including more radical privatization.

Specific policies consistent with the two major goals of liberalization and modernization would include an open-door policy which is aimed at gaining international loans, attracting investment and fostering exports and a policy of allowing private entry to promote light industry and agriculture. Actually, right after the failure of the third seven-year plan, the government declared these two policy directions to be priorities. However, the real issue is the fact that the implementation of these policies has been very slow in every area, including foreign investment and loans, exports, and domestic liberalization.

6. THE OPEN-DOOR REFORM STRATEGY

The shortage of hard currency and the related supply-side multiplier effects have been the direct causes of economic hardship in North Korea. Easing the shortage should be the solution to the economic problems. Top policy

makers in North Korea clearly state that they will pursue exports and foreign direct investment as the engines of growth. On the other hand, there is no sign that they will be initiating a radical reform of the state sector, although they have been permitting the spontaneous marketization of the consumption goods sector. This transition strategy can be considered North Korea's version of the East Asian growth model because it combines outward orientation with marketization in the consumption goods sector and a protected producer sector in the domestic economy.

As a core project in the open-door policy, the government has been promoting the Rajin-Sunbong Free Trade Zone project. The success or failure of this project would have a significant effect on the economy.

6.1 The evolution of external economic relations

North Korea's economic growth began to ease in the mid-1960s, and the country's socialist neighbours turned out to be less reliable as sources of foreign aid. The government attempted to become more active in external economic relations during the 1970s. As a result, the share of trade with socialist economies in total trade declined from 85 per cent in 1971 to 48.8 per cent in 1974 (S. Kim 1994, page 64). The government also borrowed \$2.2 billion between 1970 and 1976. About 58 per cent of the loans came from the Western economies, including Japan). Adverse external economic conditions, such as oil shocks, unfavourable terms of trade and poor export performance, led to a rise in the total foreign debt of the country. By 1974, North Korea's gross debt had climbed to \$2 billion, which was equal to the value of the country's total trade. The country's foreign debt has been growing since then, and there was a debt crisis in the early 1980s.

In the late 1970s the government started to emphasize the importance of foreign trade. Concerned about the increasing trade deficits and the debt resulting from the trade with non-socialist economies, policy makers attempted to strengthen the co-operation with socialist economies in the early 1980s. The trade with the socialist economies was still conducted by barter. At the same time, the policy makers tried to foster foreign direct investment, which, unlike foreign borrowing, did not pose the problem of debt accumulation.

It is within this background that the law on joint ventures was promulgated in 1984. This law reflected the experience in China with an open-door policy since 1979. In 1985, laws regulating taxes on the incomes of joint

ventures and of foreigners were also adopted. Through these laws and other measures, the government was attempting to attract direct foreign investment. By the end of 1993, contracts involving foreign direct investment were valued at \$150 million and embraced 144 projects. However, only a few Western firms were actually investing. Around 130 projects, more than 90 per cent of the total, represented investments by Korean businessmen living in Japan (S. Kim 1994). Moreover, only about 60 of the 144 projects had begun production activities by 1993. Thus, the general perception was that the government was not successful in attracting foreign investment. Even investment by overseas Koreans slowed after an initial spurt.

6.2 The Rajin-Sunbong Free Trade Zone

In a fresh effort to attract foreign direct investment, the government designated the Rajin and Sunbong area as a free trade zone on 28 December 1991. This is the first 'special economic zone' in the country's history. Rajin and Sunbong are in the northeastern part of the country near the Tumen River and the border with China and Russia. The government's plan is to develop this coastal region on the model of Hong Kong or Singapore.

Several new or revised laws on foreign investment have been adopted since 1992. One is the law on foreign investment that was promulgated in 1992. This law, which also serves as the framework for several related laws, recognises three vehicles for foreign investment: equity joint ventures, contractual joint ventures, and wholly foreign-owned ventures. This classification is basically the same as that existing in China, with the exception that the wholly foreign-owned ventures in North Korea are restricted to the Rajin-Sunbong Free Trade Zone.

The Rajin-Sunbong FTZ project is being implemented as a top priority by the central government. This differs from the Tumen River Development Plan which was initiated by China and which is mainly the responsibility of the Jilin provincial government. The special status of the Rajin-Sunbong project is due to the fact that the project was officially endorsed by Kim Il-Sung before his death.

The Rajin-Sunbong FTZ project consists of three main focuses: export processing using North Korean labour, a transportation network linking the hinterland, China and Russia, and tourism and hotels. Various special

benefits are being made available to investors. The free trade zone is to be run on market principles and therefore operate differently from the rest of the economy. This approach is governed by two laws: a law on the 'free trade economic zone' and a law on land leases. These and other laws permit market pricing for transactions, trading in foreign exchange, autonomy in enterprise management, and competitive bidding for leases for land. Land can be leased for up to 50 years, and the leases can be renewed, resold, transferred, and inherited. Foreign firms are exempt from the enterprise income tax for an initial period of three years, after which the tax rate on the profits of the firms is 14 per cent. Interestingly, this is one percentage point less than the corresponding tax rate in China. If the profits are reinvested, half of the taxes paid are reimbursed (Chung 1996).

By the end of June 1996, the contracts for 49 investment projects had been signed (Table 5). The projects were worth a total of \$350 million. At that time, 22 of the projects, worth a total of \$34 million, had already been initiated. The majority of these projects involved the commerce and transportation or the development of infrastructure.

The first major international investment forum was held in the FTZ on 15 September 1996 with the help of the UN Development Programme. At the forum, 439 businessmen, representing 110 companies, and other individuals from 26 countries met with 100 North Korean businessmen, representing 59 companies. Japan, with 163 participants, had the largest delegation. The second largest was the Chinese delegation with 82 participants. These two countries therefore accounted for more than half the foreign participants. The forum is considered to have been only modestly successful partly because of the absence of South Korean investors.

The total value of the investment contracts reached was \$285 million, representing eight projects, and the total value of the 30 projects agreed to in a signed investment memorandum was \$834.5 million. Of the contracted \$285 million, investments in tourism and services loom large, especially the \$180 million in hotel projects signed by the Emperor Group of Hong Kong. In manufacturing, one of the biggest contracts was with a Yantai-based Chinese company which agreed to invest in an auto-bicycle factory worth \$5 million.

TABLE 5
FOREIGN INVESTMENT (AS OF JUNE 1996) IN THE RAJIN-SUNBONG FTZ

<u>A. Contracts</u>	
Total number of projects	49 cases
Total investment:	\$350 million
Contracts signed in 1995	60 per cent of the total
Contracts signed in the first half of 1996	30 per cent of the total
<u>B. Actual Execution</u>	
Total number of projects	22 cases
Total investment	\$34 million
Distribution by sector	
Manufacturing	\$0.5 million (1.6%)
Infrastructure	\$13.5 million (40%)
Commerce and transportation	\$11.2 million (33%)
Tourism	\$1 million (2.9%)
Banking	\$7.6 million (22.3%)

Source: C. Lee (1996).

6.3 The role of South Korea and the US

The Rajin-Sunbong FTZ project emerged following the government's unsuccessful efforts to attract foreign direct investment starting in the mid-1980s and from the failure of the third seven-year plan. It seems certain that the FTZ will benefit from more foreign investment, particularly given the success of the recent investment forum. However, there are two basic problems with the project from an investor's point of view. First, infrastructure remains inadequate. Second, political uncertainty renders investment risky.

The total number of investment projects issuing from the Rajin-Sunbong forum was only one-third that resulting from the Yanban investment forum, which was held by UNIDO to help promote the Tumen River Development Plan in China. However, the value of the contracts signed at the Rajin-Sunbong forum was 1.6 times larger than that of the Yanban forum. This means that there is less investment in small-scale manufacturing projects in the Rajin-Sunbong FTZ. This is mainly due to

the lack of the infrastructure needed to support small-scale operations (C. Lee 1996). Unless this and other problems are solved, progress on the FTZ will be slow and there will not be much foreign direct investment.

From a broader perspective, the biggest stumbling blocks ahead are the economic sanctions imposed on North Korea by the US and the political stalemate between South Korea and North Korea. In addition, North Korea does not have diplomatic relations with either the US, or Japan. Just as the US has played a vital role in helping the East Asian 'tigers' grow by providing export markets and investment capital, it can do the same for North Korea. The US can also offer political assistance in acquiring access to international credit and capital. However, to a certain extent, South Korea determines whether the US will help North Korea. South Korea has been monitoring the speed of American initiatives towards North Korea and has been claiming the right to become involved in any negotiations. Thus, it would be costly and difficult for the US to push ahead without some consideration for the position of the South Korean government. The attitudes and actions of the South Korean government and of South Korean businessmen represent important signals for other potential international investors.

Thus, only when this complex problem of the international political economy of the US and both Koreas is solved can diplomatic relations between North Korea and Japan become normalized and North Korea obtain access to aid and loans from international agencies such as the Asian Development Bank, the World Bank and the IMF. If its relations with Japan were normalized, North Korea could receive monetary compensation for the Japanese colonial rule and carry through the negotiations over war reparations. Likewise, it would benefit from more investments from Koreans living in Japan. These diplomatic relations are also critical for the success of North Korea's open-door policy, for the country's political stability and for its access to international aid, loans, investments, export markets, and technology.

In the meantime, the government is moving steadily ahead with new initiatives. For example, it is planning to designate a second free trade zone on Shindo Island in the Yalu River area connecting western North Korea and Liaoning Province in Chinese Manchuria (*Korea Economic Weekly*, 4 November 1996). Talks to this end are near completion with the Chinese authorities. Beginning in 1997 the FTZ is expected to facilitate Sino-North

Korean trade mainly in food and other essentials and eventually help ease the consumer goods shortage in North Korea.

The government is also reportedly considering the designation of Nampo, a port city near the North Korean capital, and Sinuiju, a port city near the mouth of the Yalu River, as additional free trade zones. If these plans are realized, this will signal a major advance in the government's open-door policy that will help the country join international organizations like the Asian Development Bank. The government is said to be actively seeking membership in the ADB. It hopes that the ADB will provide funds for the FTZs and other infrastructure projects.

Finally, in April 1997 the two Koreas agreed on a plan to develop an industrial park for South Korean investors in Rajin-Sunbong. The Land Development Corporation, a South Korean state-owned corporation, expects to invest \$500 million to \$600 million in the development of an area roughly two million pyong in size. During the first stage, an area of 400,000 pyong is to be developed with an investment of \$100 million.

7. FUTURE SCENARIOS

The reforms in North Korea since the mid-1980s have been motivated by the increasing seriousness of the problems typical of centrally planned socialist economies. Much direct and indirect evidence demonstrates that the soft budget constraint, runaway input demand and hoarding, over-centralization and related disequilibriums such as shortages, ineffective worker incentive provisions and related collusive and opportunistic behaviour, and the lack of competition and foreign inputs are the reality in North Korea. The reforms have so far been rather limited in scope. This is the main cause of the escalation in economic hardship. In response to the deepening crisis, spontaneous marketization and privatization are occurring, especially in agriculture and the consumer goods sector. However, there has not been much fundamental change in the overall domestic economy.

Kim Il-Sung was personally involved in the design and implementation of several important measures which have shaped the country's current economic system, such as the Dae-An model of collective leadership and the unified and detailed planning system. This may represent a handicap in

the current pursuit of radical domestic reforms. Thus, the government seems to have favoured activity by the non-state sector and foreign joint ventures rather than the radical reform of the state sector.

The controlled promotion of light industry and agricultural decentralization is intended to satisfy the basic needs of the population. However, decentralization should be more widely and decisively implemented if it is to have a tangible impact nationwide. The goal of the open-door policy is to foster modernization through the reduction of the foreign exchange gap. Progress has been slow, partly because of international political and economic factors beyond the government's control. Nevertheless, the marketization of the North Korean economy is expected to continue as new economic entities become established.

The open-door policy, one of the most important elements in the government's strategy, depends on the US and South Korea. If the government can normalize relations with the US, join the international community and end the economic sanctions, the open-door policy will have a greater chance of success. The country will also be in a better position to improve relations with South Korea. Moreover, more radical domestic reforms could then be undertaken. Given the small size of the economy, the tradition of taut planning, the relative political stability, and the higher administrative capability, radical reforms are a very feasible and effective option.

This transition strategy can be considered a North Korean version of the East Asian growth model in that it combines outward orientation with the marketization of the consumption goods sector and a protected producer sector in the domestic economy. It is also a gradual approach in that more radical domestic reforms are expected to follow on the heels of success with the initial open-door policy.

The government has opted for this strategy and is expected to continue to pursue it for several reasons. First, success with the open-door policy will also help revitalize the economy, given that the economy is so small. Second, there is a strong sentiment against radicalism among the current leadership. Third, relative political stability is persisting, and no credible political alternatives have appeared. Finally, because of the strong legacy of Kim Il-Sung, more radical domestic reforms would be a problem for the

current leader, Kim Jong-II, who is also known to find radical reform uncomfortable.

However, the economic situation is worsening rapidly, and time is running out. While the gradual approach is becoming more difficult to maintain, the government may have as many as three more years to pursue the active open-door policy, combined with partial domestic marketization.

Depending on the success or failure of the open-door policy, two future scenarios are possible. First is the optimistic 'soft landing' scenario, according to which the open-door policy will be a success and, with the help of the US and South Korea, encourage more international co-operation. This will be followed by radical domestic reforms, which will lay the foundations for peaceful economic integration with South Korea. However, if success were to be obtained without much help from South Korea, the process of unification would be very slow.

Second is the pessimistic 'hard landing' scenario, according to which the open-door policy is a failure, and there is no US and international help. In this case, the current crisis deepens into collapse, and the political leadership is changed from within or through a South Korean take-over. In any case, there would be radical domestic reform and altered external economic relations as economic integration with South Korea proceeds rapidly, and the German big-bang model becomes relevant.

The international view is that the cost and uncertainties of the hard landing scenario are too great. This is also the view of the Clinton administration. On the other hand, the South Korean government, although aware of the costs, seems torn between the two scenarios and unable to take a clear position.

Recently, some have apparently come to feel that the soft landing or gradual path scenario is fast becoming unrealistic. However, this does not mean that the sudden collapse of the government is the best option. Unification would be beneficial for all the countries involved. Nonetheless, to hasten unification does not necessarily mean that one must opt for a hard landing.¹⁰

¹⁰ Although he is not explicit, to hasten unification Eberstadt (1997) seems to opt for the hard landing following the collapse of the government.

The soft landing scenario does not mean that one must act slowly. On the contrary, we must act as quickly as possible to improve the situation in North Korea by taking unilateral initiative and urging the government to undertake more radical policies. The attempt is still worthwhile, since a soft landing will be much less costly. International co-ordination and assistance, especially South Korean initiatives, should aim at moving events along this track.

It is now clear that an important element in the soft landing scenario would be a more radical reform package in North Korea, including the de facto privatization of agricultural production and more encouragement for non-state and market-oriented activities in the consumer goods sector, as well as in the border trade with China and Russia. Can we expect the current leadership to adopt such policies? The growing seriousness of the situation is rendering such an option more attractive. However, it has also been pushing hard-liners, including the military, into taking more power within the leadership.¹¹ Given that North Korea's military leaders are typically even more conservative than the Pyongyang norm (few have ever travelled abroad), this leads one to be sceptical about the possibility for positive policy change.

The nature of the North Korean leadership is thus very critical for the realization of the soft landing scenario. A big assumption in the soft landing scenario is that the success of the open-door policy will lead to further domestic reforms and to 'reform dividends' which will encourage yet additional reforms. If the leadership intervenes to check such a tendency, this might foster a stop-go reform cycle like the reform cycle which has been observed in the former East European planned economies. This is also what has occurred in Cuba in the 1990s (Pastor 1997). In Cuba, the 1993-94 reforms succeeded in generating recovery from the recession caused by external shock. However, by 1996, the Castro government seemed to be back-pedalling away from its own success, cracking down politically and economically on those who appeared to support reform the most.

Of course, there is also the example of China, where the initial success with reforms led to further reforms.

¹¹ According to *Oxford Analytica* (1997), several leading civilian technocrats with reformist leanings were not on the committee for the funeral of the defence minister, Choe Gwang, who died of a heart attack on 21 February. This strongly suggests that the military are displacing civilians at the centre of power.

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