

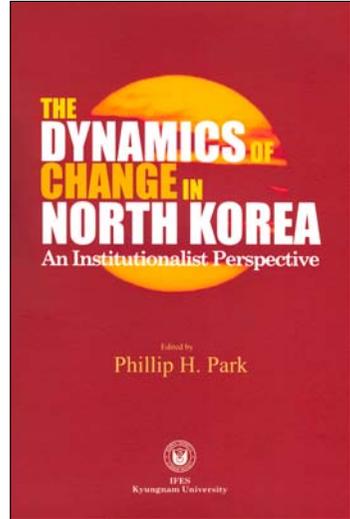
EXCERPTED FROM

The Dynamics of  
Change in North Korea:  
An Institutional Perspective

edited by  
Phillip H. Park

Distributed for the  
Institute for Far Eastern Studies,  
Kyungnam University

Copyright © 2009  
ISBN: 978-89-8421-294-7 pb



LYNNE RIENNER PUBLISHERS

1800 30th Street, Ste. 314

Boulder, CO 80301

USA

telephone 303.444.6684

fax 303.444.0824

This excerpt was downloaded from the  
Lynne Rienner Publishers website  
[www.rienner.com](http://www.rienner.com)

# Contents

|   |     |
|---|-----|
| Foreword<br><i>by Su Hoon Lee</i>   | 1   |
| 1 Introduction:<br>Economic Reform and Institutional Change in the DPRK<br><i>Phillip H. Park</i>                               | 3   |
| 2 Economic Reform and Institutional Transformation:<br>A Legal Perspective<br><i>Dae-Kyu Yoon</i>                               | 43  |
| 3 The Development of Farmers' Markets in North Korean Cities<br><i>Bong Dae Choi and Kab Woo Koo</i>                            | 75  |
| 4 Changes in North Korea's Corporate Governance<br><i>Moon Soo Yang and Kevin Shepard</i>                                       | 135 |
| 5 The Pseudo-Market Coordination Regime<br><i>Jung-Chul Lee</i>   | 181 |
| 6 North Korea's Transition to a Market-Oriented Economy:<br>Lessons from Other Transitional Economies<br><i>Phillip H. Park</i> | 215 |
| 7 Human Resource Development and International Cooperation<br><i>Jong Dae Shin and Dean J. Ouellette</i>                        | 261 |
| <i>The Contributors</i>   | 305 |
| <i>Index</i>  | 307 |
| <i>About the Book</i>   | 311 |

Introduction:  
Economic Reform and Institutional  
Change in the DPRK

| Phillip H. PARK |

In the 1990s, after the demise of the Soviet Union and its socialist bloc, an imminent collapse of the Democratic People's Republic of Korea (North Korea, or the DPRK) was predicted by many experts. This gloomy prediction of the collapse was reinforced by reports of massive starvation, caused by an acute food crisis in North Korea. Consequently, collapse of the North Korean economy was perceived to be inevitable or inescapable, and virtually no one second-guessed these opinions. It was a basket case of mismanagement under the socialist economic system, and its isolation from the rest of the world, especially from the Western world, was perceived to be a sufficient condition for North Korea's collapse.

It is no surprise to learn that in 1993, the Clinton administration's sudden change of North Korea policy, from one of considering a preemptive strike to one encouraging engagement, stemmed from the belief that the North Korean regime would soon collapse. However, despite the fact that more than one decade has gone by since the predictions of collapse came about, North Korea has neither imploded nor exploded, and still poses a threat in the eyes of those concerned about American security. Moreover, it is reported

that the North Korean economy bottomed out in 1998, and has even begun to rebound since 1999.<sup>1</sup> Recently, North Korea has implemented large-scale economic reform, and economic cooperation with South Korea is gaining momentum, despite political tensions due to the policies of the Lee Myung-bak government, as the second-largest city in North Korea, Kaesung, is now open to South Korean investors and industrialists as a Special Economic Zone. Despite North Korea's recent efforts to improve its economic situation and the internal resilience of the North Korean economy, for North Korea experts in the United States, especially those who study North Korea's economy, North Korea's future still seems bleak. They either persist with the view that North Korea's collapse is imminent<sup>2</sup> or argue for regime change in order to have genuine reform in North Korea.<sup>3</sup> Nonetheless, a careful study of North Korea's institutional transformations shows that North Korea is increasingly moving toward a market-guided economy.

### I. North Korea's Economy According to the American Experts

The North Korean economic system is described as a rigid, Stalinist, centrally planned economy. This is a commonly held view that is shared by many North Korea experts in the United States, and hence they start their analysis of the North Korean economy from this point. According to their view, North Korea's eco-

nomics system and its institutions are based on a rigid form of Stalinist socialist planning that has not undergone change since the inception of the DPRK in 1948. Consequently, most works of the North Korean experts are attempts to find inherent problems and contradictions in the socialist planned economy. Moreover, these experts on North Korea see that the sole aim of economic development in North Korea is to maintain its regime survival, and since they view the North Korean regime as evil and totalitarian, North Korea's economic failure and inevitable regime collapse is viewed to be a welcome outcome. Such a view is well expressed by two of the most influential experts on the North Korean economy in the United States, Nicholas Eberstadt and Marcus Noland.

Nicholas Eberstadt has published hundreds of articles and four books on North Korea since his first major publication, *The Population of North Korea*, in 1992. Although more than a decade has gone by, the underlining emphasis in the content of his work has not changed since his first publication. There are three important points he repeatedly brings out in his work on North Korea. They can be summarized as follows: First, the DPRK is an inherently wicked or evil state, like Nazi Germany. The sole aim of the North Korean regime is to take over South Korea by force, and the regime is willing to sacrifice anything for this. Second, the North Korean economy is fundamentally based on military needs. A substantial portion (over 120 million) of its working-age male population (aged between 16 and 55) is in the military, and the DPRK's major objective of development of heavy industries is to make weapons of mass destruction and for preparation of war against South Korea and the United States. Third, North Korea's self-reliant strategy, known as *Juche*, is simply a sham. North Korea has never been self-sufficient. Its survival so far has been maintained by "aid-maximizing," "gambits" and "mendicant" methods of

<sup>1</sup> *Korea Herald*, "N.K. economy grows for fifth year in a row" June 9, 2004, (Internet version: <http://news.naver.com/main/read.nhn?mode=LSD&mid=sec&sid1=108&oid=044&aid=0000044369>).

<sup>2</sup> Nicholas Eberstadt is a representative scholar in this category.

<sup>3</sup> Marcus Noland is a representative scholar who argues for regime change in North Korea.

dealing with its economic crises.

Based on his analysis of the North Korean economy, Eberstadt gives policy recommendations for the United States government; basically, there are four points in his recommendations. First, the cherished vision of a gradual and orderly drawing together of the two Koreas is today nothing more than a fantasy. Second, as time goes on, North Korea will only grow poorer and more dangerous. Third, the North Korean nuclear “problem,” for its part, does not derive from anything other than the inherent character and intentions of the North Korean state. The North Korean regime is the North Korean nuclear problem, and unless its intentions change, which is unlikely, that problem will continue as long as the regime is in place. Lastly, the United States and its allies should cooperate to make Korean reunification successful by facilitating the demise of North Korea (Eberstadt 1992, 1995, 1997a, 1997b, 1999, 2002, 2004, 2005a, 2005b, 2006).

While Nicholas Eberstadt took an interest in the DPRK economy at an early point in his academic career, Marcus Noland did not produce anything related to the North Korean economy until 1996.<sup>4</sup> Nevertheless, his article, “The North Korean Economy,” received a fair amount of attention because it was probably the first article on the DPRK’s economy by an American economist<sup>5</sup> since Joseph Sang-hoon Chung, who published *The North Korean Economy: Structure and Development* in 1976. Since his first article, Noland has produced numerous articles and three books on topics

related to the North Korean economy. These topics cover a wide range of economic issues such as external relations of the DPRK’s economy, cost-and-benefit analysis of Korean unification, and North Korea’s economic reform. When the prediction of the DPRK’s imminent collapse was well shared by most other North Korean experts, he wrote an article to *Foreign Affairs* in 1997 arguing that North Korea would not collapse immediately, but rather, would muddle through for a considerable time. “Muddling Through” became a sort of leitmotif for Noland’s work on the North Korean economy.

According to Noland, the North Korean regime cannot implement genuine economic reform because such reform would involve hundreds of thousands of people moving from the countryside to the cities, and literally millions of people changing jobs. Reform, therefore, would be a high-risk, big-payoff strategy for the regime. However, since the North Korean regime is weak and risk adverse, it prefers to maintain the status quo. Moreover, according to Noland, the experiences of China and Vietnam may be inapplicable to the DPRK because at the time of their reforms, these economies were far more agrarian than North Korea, and their ability to shift extremely low-productivity labor out of agriculture and into the emerging non-state-owned light industrial sector has been a key to their success thus far. Successful reform of a more industrialized economy such as North Korea is likely to be far more difficult for purely technical reasons, and would imply tremendous change for the North Korean economy (Noland 1998, 2000, 2004).

Noland argues that if the North Korean regime pursues a strategy of maintaining the status quo, it will survive in the short run, though economic crisis persists. In the long run, the status quo would bring about a collapse of North Korea due to regime

<sup>4</sup> His first major book, *Reconcilable Differences? United States-Japan Economic Conflict*, was written with Fred Bergstein in 1993, and his first academic article on the North Korean economy, “The North Korean Economy,” was presented to Joint U.S.-Korea Academic Studies in 1996.

<sup>5</sup> Nicholas Eberstadt is not an economist by training; he is a political economist who is trained in demography.

instability, exhaustion of coping mechanisms, and irreparable economic structural problems. Noland predicts that the North Korean regime would choose a “muddling through” strategy that lies between the two polar extremes of reform and collapse. According to Noland, the DPRK is following a Romanian model of muddling through since the DPRK and Romania are similar in population, income, social indicators, composition of output, and shared central planning and its attendant maladies, and the Romanian regime (the former Communist Party embodied in Ion Iliescu’s Party of Social Democracy (PDSR)) appears to have had some success with its muddling through strategy. Although Noland cautions that one should not push such analogies too far, the experience of Romania suggests that muddling through could last for years, until a more concrete and permanent change toward reform takes place. Noland doubts that the current North Korean regime can launch permanent and genuine reform. He suggests that muddling through is the North Korean regime’s survival strategy and only regime change would bring about genuine reform and help to solve the chronic food crisis in the DPRK (Noland 1997, 1998, 2004, 2007).

As Geoffrey Hodgson argues, in order to understand any particular socio-political or economic system of a country, investigation and analysis of the internal and external dynamics that comprise the evolution of the country’s economic system should be considered essential prerequisites.<sup>6</sup> However, it is very difficult to see any attempt to analyze internal and external dynamics in North Korean economic development in the work of leading American experts. What is ostentatiously missing in their works is a historical assessment of North Korean economic development.

<sup>6</sup> Geoffrey Hodgson, *Economic and Utopia* (London: Routledge, 1999), 140-146.

As Douglass North observes, the actual institutions at any given moment represent adaptation to past as well as present difficulties.<sup>7</sup> Hence, history matters. Like any other economy, North Korea’s economic system has evolved over time, albeit slowly, in order to meet the challenges it has faced.

Perhaps one of the important factors that contribute to the American scholars’ preference for static and ideological approaches in their investigation of the North Korean economy is a language barrier. North Koreanology, as B.C. Koh aptly points out, typically necessitates the practice of “Kremlinology”—the excruciatingly tedious task of sifting through official publications, including the strictly-controlled print media, with the aim of penetrating the veil of secrecy surrounding North Korean policy and, especially, the motives and goals that undergird its externally visible behavior. Such an exercise demands not only a high degree of patience and perseverance but also an ability to read between the lines, an ability that can only be acquired through prolonged immersion in North Korean publications, most of which are written in Korean.<sup>8</sup> This requires, at a minimum, a high degree of proficiency in the Korean language. As most North Korean economy experts in the United States face a language barrier that limits their ability to conduct deeper research on the North Korean economy, their work contains very few if any primary sources from the DPRK. As a consequence, it is highly difficult for them to understand internal and external dynamics in policy changes that lead to institutional change in the North.

<sup>7</sup> Douglass C. North, “Structure and Performance: The Task of Economic History,” *Journal of Economic Literature*, 16(3), (September, 1978), 963-978.

<sup>8</sup> Chung-in Moon, ed., *Understanding Regime Dynamics in North Korea* (Seoul: Yonsei Univ. Press, 1998), 85.

The following collection of articles, in seeking to map the shifting North Korean economic atmosphere, examines a range of factors, from marketization to decentralization, from grassroots movements to international assistance, and from legal transformations to the growth of illegal economies. All of the articles in this volume fully utilize materials from North Korea and furthermore, several chapters in this book employ interviews with defectors from North Korea now living in the South; North Korean transformation through the eyes of those who have personal experience gives us a much-clearer picture than merely comparing statistics or relying on official propaganda. That said, one must be careful in analysis of defector interviews, in order to ensure the integrity of the data on which research is based. The authors here have done that by employing varying interview techniques, interviewing defectors on numerous occasions and verifying as much as possible that the information provided is accurate and consistent. This is done by engaging the defectors regarding only their specific personal experiences, avoiding speculation or second hand information, and comparing the information with existing research as well as with that information provided by other interviewees.

These personal accounts of the changing nature of the North Korean economy and society, when combined with what we know of legislative changes in the North and experiences in other transitioning post-socialist states, shed a unique new light on not only what path the North is on, but where the impetus for transformation lies, and how that transformation is impacting those who are experiencing the changes. With this insight applied to the question of international cooperation for encouraging transformation of the North Korean regime, combined with lessons learned by agencies currently working with the North and input from those countries that have already undergone similar changes, a new model for

North Korean transition can more effectively encourage and support the kind of change that can improve stability in the North, on the Korean Peninsula, and throughout the region. As an introduction, first, let us examine and assess changes in North Korea's industrial sector in the context of institutional changes in North Korea.

## II. Institutional Changes in North Korea (1961-2002)

As the first socialist country, the Soviet Union provided a model for most other socialist countries. During the Depression Era (1930-1940), the apparent failure of capitalism gave developing countries more reason to emulate and learn from the Soviet Union. The communists in Korea were no exception. Following the division of the Korean Peninsula, communists in North Korea, lacking knowledge and experience in building a socialist country, were eager to learn much from the Soviet Union and "learn from the Soviets" became a popular slogan during the 1940s and 1950s in North Korea. In the beginning, North Korea adopted the Soviet model of economic development, which was a strategy of industrialization with a large agricultural sector.<sup>9</sup>

The Soviet model had three distinctive features: First, strong emphasis on rapid industrialization—the leaders of the Soviet Union believed rapid and centrally planned growth coupled with state ownership of the means of production would provide the

---

<sup>9</sup> Gordon White, "North Korean Juche: The Political Economy of Self-Reliance," in Manfred Bienefeld and Martin Godfrey eds., *The Struggle for Development: National Strategies in a International Context* (New York: John Wiley and Sons, 1982), 324.

basis for massive increases in consumption in the future. Second, strategic emphasis on squeezing the surplus from the agricultural sector; agricultural investment was held to the minimum necessary to provide industry with a growing marketed surplus of agricultural products and expanding sources of labor supply. Third, emphasis on a high rate of capital formation, with the majority of investment allocated to the industrial sector. Following Feldman's model, industrial investment was allocated on an unbalanced growth pattern, and Soviet planning concentrated on certain key sectors in each plan period to avoid and overcome particular bottlenecks.<sup>10</sup>

However, there are two outstanding problems with such a system, namely the problem pertaining to bureaucratization of economic management and the problem of incentives. In such a system, if a machine breaks down, then an enterprise cannot simply go out and order spare parts or a replacement. It must seek the approval of its administrative superior, which then must deal with the agency that is superior to the producer of replacement machinery or spare parts. Since enterprises were evaluated above all in terms of quota fulfillment or gross output, they naturally resist special orders, or give them low priority; the problem is compounded because the potential producer of replacement parts will already have its output for the year allocated according to plan. The replacement is apt to take a long time to arrive, and if it is defective in any respect, the problem becomes a vicious cycle of delay and waste. Furthermore, defective or low-quality products are endemic in the system; since the prime measure of success is in meeting or surpassing the quota in quantitative terms, often quali-

<sup>10</sup> Phillip Park, *Self-Reliance or Self-Destruction* (New York: Routledge, 2002), 14.

ty must be sacrificed to meet the quantitative targets.

The second category of problems has to do with incentives. As far as enterprise management in a Soviet-type economy is concerned, the state receives all profits and absorbs all losses, limiting incentives in this area as well.<sup>11</sup> Moreover, since managers are given their production plans and have their supplies, suppliers, and product recipients designated, they have very little room for initiative or innovation. These inherent problems of the planned economy were visible since the early period of economic development in North Korea.<sup>12</sup> The (former) Soviet Union and the Eastern Bloc socialist countries started to relax the rigid planning system by adopting partial decentralization and giving more autonomy to local enterprises in decision-making processes based on the Liberman model during the 1960s. Although North Korea criticized other socialist countries, including the (former) Soviet Union, as revisionists, North Korea also introduced a new industrial management system in 1961. The new industrial management system that was introduced in North Korea was not an exact replica of the (former) Soviet Union or other socialist countries. North Korea introduced a new industrial management system in which incentives were strengthened while keeping the Korean Workers' Party (KWP, the Party) leadership intact.

In December 1961, Kim Il Sung visited the *Daean* electric machine plant, where he gave on-the-spot guidance to industrial workers and party functionaries in charge of management.<sup>13</sup>

<sup>11</sup> Victor Lippit, *The Economic Development of China* (New York: M.E. Sharpe, 1987), 203.

<sup>12</sup> Office of Intelligence Research, "North Korea: A Case Study of Soviet Satellite," Report of the Department of State Research Mission to Korea, Dept. of State, Report No. 5600, May 20, 1951, 80-84.

<sup>13</sup> Kim Il Sung, "*Daeanui Saup Chekhwereul Duook Palchunsikil dae dahayeo* (On

Kim's discussions with the workers and his recommendations to them, known as the *Daean* System, became the standard working procedure for all North Korean industries. The *Daean* System was a departure from the previous "one-man management system" inherited from the Soviet Union. Under the *Daean* System, the highest managerial authority was Party committees. Each committee consisted of approximately twenty-five to thirty-five members elected from the ranks of managers, workers, engineers, and leaders of the working people's organization. A smaller executive committee, made up of the committee secretary, the factory manager, and the chief engineer, was responsible for daily plant operations and major factory decisions.<sup>14</sup>

Methods of resolving issues affecting production and worker activities, as well as the implementation of resolutions, were decided through collective discussions within the committee. Each factory had two major lines of administration, one headed by the manager and one headed by the party committee secretary. A chief engineer and his or her assistants directed the general staff in charge of all aspects of production, planning, and technical guidance. The manager established various supporting departments such as material supply, labor administration, and financial affairs, as well as welfare work departments to ensure smooth operation of the factories and to attend to the workers' welfare. For instance, the deputies in charge of the supply department were responsible for securing, storing, and distributing all materials for factory use,

---

Improving the *Daean* System of Industrial Management)," in *Kim Il Sung Works*, Vol. 3 (Pyongyang: Chosun Rodongdan Chulpansa, 1996), 433.

<sup>14</sup> Kim Ku Sik, "*Kiup Kwanriesu Gongjangdangwewonhoereul Choko kiwhairo hanun Dangjuk Jido Chekhwe* (The Party System that Puts Factory Party Committee as a Chief Office in the Management of Industrial Operation)," *Kyungjae Yeonkoo*, Vol. 1 (1966), 6.

as well as for storing and shipping finished products out of the factory.

The deputies in charge of labor administration assigned workers to their units and handled the factory accounts and payroll. The deputies in charge of the workers' welfare were responsible for directing all farming on factory lands, stocking factory retail shops, and taking care of all the amenities for the staff. In the case of very large enterprises, the factory deputy manager, the heads of the schools, kindergartens, and nurseries, and the director of the local hospital, etc. formed a district committee. This committee was responsible for all aspects of the lives of the workers and their families, including housing, fuel, and deliveries of consumer goods, education, health, cinemas, and other leisure activities. On the other hand, the party committee secretary was responsible for all political activities in each of the factory party cells and attempted to ensure loyalty to the party's production targets and management goals.<sup>15</sup>

The *Daean* industrial management system was a direct product of the *Chollima* movement. As the North Korean development strategy shifted from the Soviet model to the self-reliant model based on mass mobilization, worker participation in management was perceived to be essential. The *Daean* System, however, encouraged a more rational approach than that practiced previously. Although party functionaries and workers became more important to management under the new system, the engineers and the technical staff also received more responsibility in their areas. Furthermore, under the system, the importance of material incentives as well as politico-moral incentives was recognized. The Independent Accounting System (IAS) was beginning to be applied to

---

<sup>15</sup> Kim Ku Sik, *op. cit.*, 8-9.

various small production units within the enterprise. Each enterprise was allowed to keep surplus revenue and to distribute the profits among workers. The IAS, in which profits were distributed according to each worker's contribution, was also introduced as an intra-enterprise incentive system. By checking the input-output record of each work team and group, bonuses were granted to those work units showing the most efficient use of raw materials and equipment.<sup>16</sup> This was a clear measure to increase material incentive, but since the bonuses were given to the work team instead of to each individual member, it was also designed to prevent the rise of rampant individualism.

The *Daean* System was North Korea's industrial management system, and was designed to alleviate the problems of bureaucratization of the economic system and incentives. However, when North Korea became embroiled in intense ideological debate in the mid-1960s, North Korea reversed much of its reform policy and went back to the rigid planning model.<sup>17</sup> In 1964, a measure to reinforce the planning method was introduced, known as the Unified and Detailed Planning System. Clearly, this was a policy that put more weight on ideology and politics, rather than on advocating policy that emphasized the importance of rationalizing the economy. As such, the state tried to get a firm grip on economic planning by implementing closer and more intensive supervision over local industries, and regional administrative planning commissions were established in the country's provinces under the direct supervision of the state planning commission. Similar state

planning organs were set up in cities and counties, with corresponding sections at factories and enterprises.<sup>18</sup> By establishing local branches of the State Planning Commission, the state commissioners were to go into the factories and enterprises to supervise the execution of the plan.

In 1965, there were also changes in plan formulation procedures. This change was implemented in order to resolve the conflict between central planners who asked for maximum output from production units without guaranteeing more than the minimum supplies of materials, and producers who requested maximum supplies without guaranteeing maximum effort and output. According to Kim Il Sung, the new procedures were introduced to reduce subjectivism in planning by inducing more worker participation in the planning process.<sup>19</sup> The stages of plan formulation in the DPRK were as follows: Each factory, enterprise, and cooperative farm formulated its own plan. This preliminary plan was submitted to the State Planning Commission. The Commission then compared the drafts received and arrived at a set of control figures. After these figures were examined and discussed by the Administrative Council, they were submitted to the economic branches of the relevant administrations. Based on the control estimates set up by the State Planning Commission, all administrative branches, factories, and enterprises formulated their respective plans and resubmitted them to the State Planning Commission. The State Planning Commission then finalized the overall draft plans. The draft was submitted to the Supreme People's Assembly

<sup>16</sup> Phillip Park, op. cit., 36.

<sup>17</sup> Chosunrodongdnag Chulpansa, *Wedahan Suryong Kim Il Sung Dongjiui Bulmyului Hyuckmyung Upjuk 15* (Great Leader Kim Il Sung's Revolutionary Achievement 15), Vol. 15 (Pyongyang: Chosun Rodongdan Chulpansa, 1999), 157.

<sup>18</sup> Phillip Park, op. cit., 36.

<sup>19</sup> Kim Il Sung, "To Give Full Play to the Great Vitality of the Unified and Detailed Planning of the National Economy," in *Kim Il Sung on the Management of the Socialist Economy* (Pyongyang: Foreign Language Publishing House, 1992), 200-211.

for final approval.<sup>20</sup>

In the mid-1960s, the (former) Soviet Union implemented an important reform measure. This reform was designed to increase managerial power at the local level, reducing considerably the number of compulsory indicators “passed down” from central authorities. Prices were recalculated on the basis of cost plus a percentage of the value of capital assets. Moreover, under this reform scheme, managers were to have greater freedom to decide how to use their profits, including as incentive payments to workers, for reinvestment, or for payment into amenities funds. This reform, overall, moved away from rapid industrialization and toward more balanced growth—relaxation of central planning and greater embracement of market measures spread to other socialist countries.<sup>21</sup> In North Korea, the *Kapsan* group, who were inspired by the reform in the Soviet Union, challenged Kim Il Sung’s rapid industrialization strategy by pointing out the accumulation crisis during this period.<sup>22</sup> Nevertheless, the Kim Il Sung group prevailed in this power struggle and consolidated its monolithic polit-

ical system of *Suryong* (Supreme Leader). The reversion of more rigid planning, such as unified and detailed planning, should be understood in this context.

North Korea’s rigid planning continued until the end of the 1960s. However, when Kim Il Sung had firmly consolidated his leadership position internally and the U.S.-Soviet Union détente eased tensions and improved its external environment, North Korea relaxed its rigid planning system once again. During the fallback on rigid planning, the IAS was not properly practiced and most measures that were designed to stimulate material incentives were also de facto abolished. In 1973, Kim Il Sung criticized Party officials’ tendency to ignore material incentives and the principle of socialist distribution (each according to his/her contribution), and urged them to observe the independent accounting system and piece-rate measures within the *Daean* system.<sup>23</sup>

Despite Kim Il Sung’s criticism, the *Daean* system did not function properly. Under the existing system, the highest managerial authority was the Party committee; since the Party committee was organized locally, in order to ensure proper working of the *Daean* system, delegating authority to the local level was essential. Nonetheless, during the fallback on rigid planning, administrative recentralization had occurred. During this period, state enterprises were no longer permitted to retain a portion of their profit, and most were reassigned administratively to the central government. The problems to which it had given rise were overcome, but the problems that had generated the decentralization naturally reemerged.

During the 1970s, the DPRK attempted to make the changeover from an extensive to an intensive growth strategy. However, there were basically three major impediments that made the transition

<sup>20</sup> Kim Il Sung, op. cit., 214-220.

<sup>21</sup> Alec Nove, *An Economic History of the U.S.S.R.* (London: Penguin Books, 1989), 367-368.

<sup>22</sup> As the external environment became hostile to North Korea, North Korea adopted the strategy of simultaneous development of defense and economy. Combined with the accumulation (investment) problem, North Korea’s industrial growth experienced negative growth in 1966 and 1969 during this period.

| Year        | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 |
|-------------|------|------|------|------|------|------|------|------|------|
| Growth rate | 14%  | 20   | 8    | 17   | 14   | -3   | 17   | 15   | -.25 |

Source: Lee Tae Sup, *Bukhanui Jipdanjuichuk Balchun Chulyakhwa Suryong Chekyeui Hwakrip* (The Collectivist Development Strategy and the Establishment of the Suryong System in North Korea, 1956-1967), Ph.D. dissertation, Dept of Political Science, Seoul National University (2001).

<sup>23</sup> Chosunrodongdnag Chulpansa, op. cit., 249.

difficult. First, starting in the late 1960s, there was a sharp rise in national defense expenditure as the international political environment became hostile to the DPRK. The deterioration of the DPRK-Soviet and the DPRK-China relations compounded the DPRK's defense burden as both the Soviet Union and China abruptly reduced their economic and military aid to the DPRK because the DPRK refused to side with either country in the Sino-Soviet confrontation.<sup>24</sup> Second, the DPRK's efforts to achieve the technological modernization necessary for increasing productivity through large-scale imports of capital equipment from Japan and Western Europe were frustrated when the DPRK's exports failed to keep pace with imports. This was primarily due to a softening of the world markets for magnetite, lead, zinc, tungsten, and other metals on which the DPRK's hard currency earnings depended. Third, the DPRK regime's disposition toward a paternalistic management style and its rigid adherence to central planning for managing the economy were incompatible with the measures that were introduced to encourage intensive growth.

North Korea did not take any dramatic measures until the early 1980s. During the 1970s, North Korea consolidated the political system of monolithic *Suryong* and its self-reliant development strategy, *Juche*. *Juche* was officially elevated to the guiding principle of the state in North Korea's 1972 Constitution. However, when political stability was ensured as Kim Jong Il was designated to be the heir of Kim Il Sung in 1980,<sup>25</sup> North Korea resumed its eco-

nomic reform process, which had halted nearly a decade earlier, and from 1981, some administrative authority was transferred back to the localities. In 1985, the "enterprises complex initiative" was introduced.<sup>26</sup> The enterprise complex was an important stepping-stone for subsequent decentralization, and had three significant features.

First, the initiative allowed local party committees to be managed under the enterprise complexes. Before the initiative, a local party committee functioned under a regional party committee, and accordingly, enterprises under the management of each different local party committee were not allowed to cooperate inter-regionally. However, since national horizontal integration was possible under the new initiative, and each local party committee was under the leadership of the enterprise complex, an enterprise complex could make decisions without the interference of local or regional party committees.<sup>27</sup> Second, in order to increase the autonomy of a manager within an enterprise complex, the role of the Party had been reduced in decision-making processes within the complex.<sup>28</sup> Third, the new initiative required the IAS to be

<sup>24</sup> Kim Il Pyung, *Communist Politics in North Korea* (in Korean) (Seoul: Hanwool, 1986), 134-135.

<sup>25</sup> Kim Il Sung, "Chosunrodongdang Je6chadahoe Joongangwewonhoe Saupchonghwa Boko (Report of 6th DPRK's Labor Party's General Meeting)," in Ministry of Unification, *Chosun Rodongdang Daehoe Jaryozip* (Collection of the DPRK Labor Party's General Meetings (Seoul: Ministry of Unification, 1988), 155.

<sup>26</sup> Lee Sang Sul, "Daeanui Saupchekwe Kwanchul kwa Ruynhapkiupso (On Completion of Dae-an Industrial Management and Industrial Complexes)," *Kunlloja*, No. 7 (Pyongyang: Kunrojasa, 1986), 49.

<sup>27</sup> Kim Il Sung, "Yeophyupkiupsoeryul Chozikhamyue Chungmoowonui Saupchejehwa Banbupryel Kasunhal dae Dahayeo (On the Improvement of Method and Work System of State Affairs Office in Organizing Enterprise Complex)" *Sahoejuui Kyongjaekwanrimoonjae Dahayeo 7* (On the Problems of Socialist Economic Management, vol. 7) (Pyongyang: Chosun Rodongdang Publishing Company, 1985), 247.

<sup>28</sup> As the rank of party secretary was lowered, a manager of an enterprise would be higher in rank than the local party secretary. Kim Jong Il, "Dang hwa Hyukmyungdaeo ui Kangwhabalchun hwa Sahoejuui Kyungjae Kunsul ui Saroun Yangyang ul uwhehae su (For the Strengthening Party's Revolutionary Spirit and New Enhancement of Socialist Economic Development),"

strengthened and strictly reinforced in the enterprise complex. These reform measures of decentralizing authority to local levels and of reinforcing the independent accounting system, in actuality, paved the way for transferring North Korea's economic relationship from one of bureaucratic command to one based on contractual relationships.<sup>29</sup>

Of course, the contract system that was stressed during this period was not the free contract system of a market economy. The contract system should be understood in the general context of planning; accordingly, the contract system that was emphasized during this period was enacted to remedy defects in the planning system by finding shortcomings of supply-demand contracts and correcting them. In the implementation process, however, significant changes had occurred. Since the enterprise complex became the basic unit of planning, it now had the authority to make contracts with other complexes, and was allowed to keep any profit that was generated from these transactions. Moreover, planning could become much more flexible, as the complexes could cancel supply contracts if they did not need pre-contracted materials, or readjust contracts if there were needs for change. On the other hand, the regulations that enforced contracts became stricter, as there were penalties for violating contracts, and heavy penalties could be imposed if a supplier did not ensure the quality of sup-

plies.<sup>30</sup> As the contract measures were implemented, they became an important tool in utilizing the means of production in commercial form, and the IAS was further strengthened, despite the fact that the measures were implemented within the planning scheme.

In 1990, Kim Jong Il delivered a speech titled "On Improvement of Banking and Finance" to high-ranking state officers. In the speech, Kim Jong Il emphasized the importance of observing the independent accounting system, wholesale prices, and profits when conducting economic activities.<sup>31</sup> After the speech, several reform measures were implemented. The new measures allowed an enterprise complex to determine prices of certain items and encouraged active utilization of a "negotiated price." Although the measures were applied to only a few select items, they could be considered as one of North Korea's first experiments with market mechanisms, because negotiated prices were determined by supply and demand in a market environment. Moreover, the new measures included "Due Diligence of Socialist Asset Evaluation." As this measure was implemented in the same year, a total of 3.2 percent of previously omitted assets could be recovered.<sup>32</sup> As all the assets in North Korea now had been appraised in cash terms, this measure also provided a strong basis for the proper function-

---

in *Selected Works of Kim Jong Il*, Vol. 8 (Chosun Rodong Publishing Company, Pyongyang, 1986), 354.

<sup>29</sup> Kim Il Sung, "Yeonhapkiupsae rul Chozikhmyo Chungmoowon ui Saupcheje wha Bangbub ul Kasunhal dae Dahayeo (On Improving Working Method and System of Chungmoowon by Organizing Enterprise Complex)," *Sahoe kyungje kwanrimunjae e Dahasu* (On the Problems Related to Management of a Socialist Economy), Vol. 7 (Pyongyang: Chosun Rodong Publishing Company, 1985), 431.

---

<sup>30</sup> An Yoon Ok, "Kiupkwanri ui Haprihwa asu Kyeakwankye ka Nonun Yeokwal (The Role of Contract in Rationalization of Industrial Management)," *Kyungje Yeonkoo* (Study on Economy), Vol. 1 (Pyongyang: Pakhwasa Chulpansa, 1993), 38.

<sup>31</sup> Kim Jong Il, "Jajungeunhangsaup ul Kasunhaldae Dahayeo (On Improving Banking and Finance)," *Selected Works of Kim Jong Il*, Vol. 10 (Pyongyang: Chosunrodongdang Chulpansa, 1990), 161-185.

<sup>32</sup> Chosunrodong Chulpansa, *Uwedahan Suryong Kim Il Sung Tongie ui Pulmyul ui Hyukmyung Upjuk 15* (Immortal Revolutionary Achievement of Great Leader Kim Il Sung Vol. 15), (Pyongyang: Chosunrodongdang Chulpansa), 305.

ing of the IAS.

Strengthening of the IAS within enterprises was, on the other hand, an effort to improve an individual worker's incentive. It was a basic scheme of rewarding greater productivity with higher pay and bonuses, and penalizing lower productivity with lower pay and no bonuses. The new measures allowed each enterprise to keep up to 5 percent of their profits as a reserve fund, and an enterprise could award an individual worker with higher productivity even if the enterprise as a whole did not make a profit.<sup>33</sup> Since, in the past, the funds available for bonus payments depended on the enterprise's meeting basic state planning quotas for output, the new measure for rewarding individual workers for higher productivity was unprecedented, and a significant departure from the past.

The extension of the IAS system could be viewed as strengthening professionalism in management. The highest authority still resided with the party committee, but the director's rank was half a step higher than that of the party secretaries. The guidelines for evaluating management performance were also provided, and party committees had been ordered to refrain from involving themselves in the management of the complexes and to restrict their roles to assuring compliance with Party and state directives. Responsibility for the economic performance of the enterprise had been restored to the director, working together with the chief engineer and accountant.<sup>34</sup>

Beginning in the early 1990s, however, North Korea under-

<sup>33</sup> Lee Jeong Chul, *The Economic Dynamics and Political System of Socialist North Korea*, Ph.D. dissertation, Dept. of Political Science, Seoul National University (2002), 165.

<sup>34</sup> Kim Jung Il, *op. cit.*, 354.

went a severe economic crisis, and consequently, its economic reform process had to be halted until the end of an adjustment period (1993-1996). It appears that since this time, there has been an intense debate on the development strategy between two different groups in the government; one that favors reform based on a balanced growth strategy, and the other that insists on the traditional socialist strategy of unbalanced growth. One of the most influential economic journals in North Korea, *Kyungjae Yeongu* (Research on the Economy), features two contrasting views on the development strategy of the latter half of the 1990s and onward. The first group argues that when a country has passed a certain developmental stage, the country should adjust the speed of development of heavy industry by reducing investment to it, and concentrating its efforts on the development of light industry and agriculture. In this way, the paper points out, as the growth rate of consumption should be set according to the growth rate of accumulation, people's living standards can be raised decisively. The paper further argues that since light industry's return on investment and cash flow are faster than those of heavy industry, a greater portion of investment should be given to light industry than to heavy industry.<sup>35</sup>

On the other hand, the second group insists that only adequate development of productive means (heavy industry) would ensure proper restoration of normal production.<sup>36</sup> Since North

<sup>35</sup> Kim Sang Hak, "Uri Tangui Hyukmyongchuk Kyongjaechulyakhwa Chookchuk-hwa Sobisaiui Kyunhyung (Equilibrium between Accumulation (Investment) and Consumption and Our Party's Revolutionary Economic Strategy)," *Kyongjae Yeongu*, Vol. 2 (Pyongyang: Pakhwachunjongha Chulpansa, 1996), 9-10.

<sup>36</sup> Lee Joon Hyuk, "Hyukmyongchuk Kyongjaeui Kwanchulhwa Sahoejuui Kyongjaechuk Jinziui Kongkowha (Fulfillment of Revolutionary Economic Strategy

Korea rarely showed differences in opinion regarding the direction of the country, this exchange demonstrated how intense debate was in the middle of the 1990s. However, it has been observed that although North Korea acknowledged the importance of development of light industry and agriculture<sup>37</sup> by creating Light Industry First, Agriculture First, and Trade First policies (giving priority to development of light industry, agriculture, and trade) as the state's official economic agenda, in actuality more investment was allocated to heavy industry.<sup>38</sup>

As North Korea's economic situation in the 1990s became even more dire, and its economic isolation was accentuated due to the collapse of the (former) Soviet Union and the CMEA (Council for Mutual Economic Assistance), North Korea fell back on the traditional strategy of giving priority to the development of heavy industry and a reliance on extensive sources of growth such as increasing labor (i.e., mass mobilization such as the second *Chollima* movement) without technological improvement. Nonetheless, North Korea did not completely abandon its economic reform programs. As soon as its situation improved, North Korea first rationalized its economic system, and then launched even more drastic reform measures later on.

Starting in 1999, North Korea began to move away from the enterprise complex.<sup>39</sup> There were, basically, two reasons for this.

---

and Solidifying Socialist Economic Position),” *Kyongjae Yeongu*, Vol. 3 (Pyongyang: Pakhwasa chulpana, 1996), 14-15.

<sup>37</sup> Lee Jung Chul, op. cit., 213.

<sup>38</sup> According to *Chosunjoonangtongshin* (North Korea Central News) on April 7, 1999, the share of the people's economy that included light industry increased 2 percent compared to the previous year, while electric, metal, transportation increased 15 percent, 10 percent and 10 percent, respectively, in the 1999 budget.

<sup>39</sup> Ham Jin Soo, “*Kyongjae kwanriui Jungkyuhwanun Sahoejuisahoewi Bonsungkwa*

First, it was an effort to shed the unprofitable sectors within the enterprises during economic downturns. Second, since one of the reasons to establish the enterprise complex was to solve or at least to improve supply management problems, the enterprise complex absorbed factories and enterprises that originally belonged to other types of industry, but were vital to the complex's supply chain. However, each different state entity that originally had authority over management of the factories and enterprises continued to extend its influence over to the enterprises and the factories even after the establishment of the complex. Hence, it was extremely difficult for the complex to manage absorbed factories and enterprises, and as a result, the enterprise complex could not enjoy the much-expected synergy.<sup>40</sup>

North Korea's national economic management was carried out by two organizations: *Joonang Inmin Wewanhoe* (Central People's Committee) and *Chungmoowon* (Office of State Affairs), and this overlap of leadership caused confusion in management. Therefore, in 1998, North Korea made the Cabinet solely responsible for economic management through a constitutional amendment. This change entailed two significant developments in the management of enterprises. First, as the Cabinet was solely responsible for the economy, it was possible to separate the Party from enterprise management, and consequently, politics from economics. Second, ministries and departments under the Cabinet were allowed to establish divisional ownership in industries. Let us examine each in turn.

---

*Daekyumo Sahoejuikyungjaewi tuksuneul chunmyunjukuro Kuhyunhakoinun Tokchangjukin Kwanriunyungbangsik* (Giving Regularity in Economic Management is a Unique Management Method that Embodies Characteristics of Socialist Economy),” *Kyongjae Yeongu*, Vol. 3 (1999), 12.

<sup>40</sup> Lee Jung Chul, op. cit., 233.

The constitutional revision in 1998 restricts the Party's involvement in economic management. Although in the past North Korea put some effort into preventing Party bureaucracies from intervening in economic affairs, they were not successful. For instance, starting in 1989, the Korean Workers' Party's Political Office supposedly should not involve itself in the process of economic policy making, but in reality, it did intervene, as the Central Party of KWP is directly under the Joosuk (President Kim Il Sung) and the Political Office of KWP allegedly possessed enormous power and could exert significant influence within the KWP. Hence the Political Office, if they wished to, would not hesitate to intervene in issues important to the entire country, including issues related to the economy. However, this intervention by the Political Office was minimized in 1998 by a constitutional amendment that allowed for such a practice to be punished. Moreover, the responsibility of managing the economy was given to the Office of State Affairs in 1994, but politics were not absent in the realm of economic management. Because a local-level party secretary held the concurrent position of chair of the local People's Committee, the Office of State Affairs needed to deal with the local party secretary in getting local cooperation and participation in the management of the national economy. Since these concurrent posts were abolished by the 1998 constitutional amendment, and as the previous Administrative Economy Committee chair now also assumed the local People's Committee chair position, technically, the Party was not allowed to intervene in economic affairs at a local level.<sup>41</sup>

The other important change that was initiated by the constitutional amendment of 1998 was the Cabinet ministries' and depart-

ments' assumption of de facto ownership of industries. Before the amendment, a local enterprise received quotas from the ministries or departments, and the central government was directly in charge of all local enterprises, so rational and proper management was difficult. After the amendment, the local enterprises were under the direct control of the relevant ministry or department of the Cabinet. More important, ministries and departments now had their own funds to guide local enterprises.<sup>42</sup> As a result, ownership of local enterprises transferred from the central government to ministries or departments under Cabinet control, and they became the basic unit of ownership in North Korea.

The latest reform measure was the Economic Management Reform Measure (the 7/1 Measures) implemented on July 1, 2002. There were three important aspects of the reform. First, as the 7/1 Measures allow local enterprises to have the authority to plan their own production, it is the transfer of decision-making authority from supervisory-administrative organs to production levels, the local enterprises. The direction of the reform is toward allowing more decision-making power at the level of the producing units, while reserving for state planning for the central role in determining such macroeconomic parameters as the level and direction of investment, sectoral balances, economic growth, and structural design, and the overall direction of the economy. North Korea seemed to be moving toward a mixture of planning and market guidance for enterprises, with planning taking precedence. The priority of planning was reflected in the fact that in key areas,

<sup>41</sup> Pak Hak-soon, *Kim Jong Il Sidaewi Kukakikoo* (National Organs in Kim Jong Il's Era) (Seoul: Sejoing Yeonguso, 2000), 59-60.

<sup>42</sup> Lee Dong Koo, "Nakakchungsimjaenuen Kyongjaesaupue daehan Kukau Tongilchukkwanyungtae (The Cabinet Is North Korea's Unified Form of Management in Economy)," *Kim Il Sung Jonghap daehak hakboe* (summer 2001), 46.

enterprises must first fulfill plan requirements with a certain proportion of their output before they could seek out their own suppliers, markets, and so forth with their remaining capacity.<sup>43</sup>

Second, the 7/1 Measures enabled price reform according to market signals. The procurement price of rice was now lower than the retail price, i.e., the state stopped subsidizing this basic grain.<sup>44</sup> It was presumed that the price of rice in the black market was reflected in the state's selling price.<sup>45</sup> The wages of workers also increased dramatically; for an industrial worker, the wage increased from 110 won to 2000 won, so the workers now had a realistic degree of purchasing power to sustain their livelihood. These changes indicated the abandonment of rationing and reliance on market mechanisms for the distribution of goods. Third, the 7/1 Measures allowed for the acceleration of replacement of direct administrative control over the economy for indirect economic measures to assure that enterprise behavior would be consistent with national economic goals. As a result, money became an important tool in the North Korean economy. State subsidies were abolished, and at the same time, cost and scarcity were reflected in the prices of consumption and intermediary goods.

Although many experts on the North Korean economy cast strong doubts on the veracity and intention of North Korea's economic reform,<sup>46</sup> North Korea is gradually moving away from the

<sup>43</sup> Kim Yeon Chul, *Bukhan Kyongjaekwanriui Sungkyukhwa Chunmang* (Characteristics of North Korea's Economic Reform and its Prospect) (Seoul: Humanitas, 2002), 14-15.

<sup>44</sup> In the past, the state bought rice from the peasants at 80 chun per kilo and distributed it to urban workers at 8 chun per kilo. After the reform, the state bought at 40 won per kilo and distributed at 44 won per kilo.

<sup>45</sup> Kim Yeon Chul, op. cit., 15.

<sup>46</sup> The most notable examples are as follows: Marcus Noland, *North Korea After Kim Jong Il* (Washington DC: IIE, 2004); Nicholas Eberstadt, "PERSISTENCE OF NORTH KOREA," *Policy Review* (October 2004).

rigid Stalinist planned economy to an economy where market measures increasingly play significant roles in the overall economic structure. The extent of reform, however, is dependent on the North Korean leadership's perception and understanding of its external environment. North Korea's most important objective of economic development is to achieve and maintain national sovereignty. So, after the Korean War, North Korea decided to develop an independent economy, but this decision is not absolute, nor has it ever been. In large part, as John Merrill argues, the history of North Korea has been a history of choices and consequences of the conflict between its desire for maximum independence and its acknowledgment that it could not isolate itself totally from the political and economic currents sweeping the world.<sup>47</sup> Whether North Korea successfully completes its reform and rescues itself from economic crisis is not only dependent on its own efforts, but also heavily depends on its external environment. Without favorable environmental factors such as infusion of capital and technology from abroad, access to foreign markets, and an international environment generally friendly to smooth economic relations, one country's economic reform can only go so far.

In this respect, North Korea's diplomatic and military confrontation with the United States can be considered to be one of the biggest obstacles in North Korea's economic reform. As of now, the United States perceives North Korea's nuclear development program to be a threat to its security, but North Korea, on the other hand, perceives it to be the only deterrence to outside aggres-

tence of North Korea," *Policy Review* (October 2004).

<sup>47</sup> John Merrill, "North Korea's Halting Efforts at Economic Reform," in Lee Chong-sik and Yoo Se-Hee, *North Korea in Transition* (Berkeley: Institute of East Asian Studies, 1991), 142.

sion. The development of nuclear weapons should be discouraged and prevented; nevertheless, like the reform programs in North Korea, its nuclear program has a long history and should be understood in terms of North Korea's self-rescue measures instead of as offensive or aggressive measures, in order to keep its national sovereignty. Let us investigate this issue further.

### III. North Korea's Nuclear Development Program and Economic Reform

As we have seen in its earlier development period, North Korea pursued a development strategy of giving priority to the development of heavy industry. However, this line of North Korean development clashed with the Soviet's socialist common market and cooperation scheme, CMEA. Relations between North Korea and the Soviet Union became tense after Nikita Khrushchev came to power. The Soviets, irked at not being sufficiently consulted in the process of designing a new economic plan (the Post-War Economic Construction Plan), expressed their reservations and urged North Korea to give more attention to consumer goods and agricultural sectors instead of giving priority to the development of heavy industry.<sup>48</sup>

The Soviets' opposition to North Korea's self-reliant strategy had direct consequences. Soviet aid to the DPRK was significantly reduced after the completion of the Three-Year Plan (1954-1956); Soviet aid to North Korea was reduced from \$367.5 million during the 1954-1956 period to \$156 million during 1957-1960 period. North Korea did not receive any aid from the Soviet Union until 1967,

<sup>48</sup> Gordon White, op. cit., 331.

when the Soviet foreign minister Aleksey Kosygin visited North Korea and realigned the relationship between two countries.<sup>49</sup> Moreover, the Soviet military guarantee embodied in the 1961 Korea-Soviet treaty diminished and military aid was shut off for several years when North Korea refused to side with the Soviet Union during the Sino-Soviet dispute. On top of this, a military coup d'etat in South Korea in 1961, the Cuban Missile Crisis in 1962, and heightened involvement of the United States in Vietnam in 1965 accentuated increased tension on the Korean Peninsula during the 1960s. North Korea did not even get along with China during the Chinese Cultural Revolution (1966-1976). The DPRK criticized China for its hard-line policies during the Cultural Revolution, and the Red Guard in China reportedly attacked Kim Il Sung as a "fat revisionist" which almost ignited a military confrontation along the border between the two countries. In this situation, North Korea figured that it could not rely on any other country for its national defense, but to have its own national defense through the development of heavy industry. Kim Il Sung made this point clear when he said:

Heavy industry is the foundation of development of the national economy. Without developing heavy industry, light industry and agriculture cannot be developed, and modernizing the national economy would not be possible. Heavy industry is a basis for national independence and enables us to pursue self-reliant development of national economy and to defend ourselves.<sup>50</sup>

<sup>49</sup> For more detailed discussion of this issue, please read Phillip Park, *Self-Reliance or Self-Destruction?* (New York: Routledge, 2002).

<sup>50</sup> Kim Il Sung, *Kim Il Sung Works* 19 (Pyongyang: Chosun Rodongdan Chulpansa, 1996), 295.

The intensification of Cold War tensions on the Korean Peninsula and in other parts of the world, combined with the weakening solidarity among the communist bloc nations, compelled the DPRK to divert a greater amount of resources to defense. In the beginning of 1965, the DPRK adopted a series of policy measures to pursue a parallel development of the defense and economic sectors,<sup>51</sup> and the policy of parallel development continued since.

**Table 1.** Estimation of North Korea's Defense Expense (1960-1990)

| Year               | 1960-1966 | 1967  | 1970  | 1975           | 1980           | 1985           | 1990           |
|--------------------|-----------|-------|-------|----------------|----------------|----------------|----------------|
| Defense/<br>budget | 19.0%     | 30.4% | 29.2% | 16.4~<br>24.6% | 14.6~<br>21.9% | 14.4~<br>21.6% | 12.0~<br>18.0% |

Source: Ham Taik-young (1995), "Bukhan Kyungjaeui Chimchewha Daehoekwanye" (North Korea's Economic Downturns and Its External Relations), in *Bukhan Sahoejuikyungjaeui Chimchewha Daeung* (North Korean Socialist Economic Downturns and Its Response), Kyungnam Univ. Press., Seoul, 122-123.

North Korea's heavy burden of defense expenditure became an enormous barrier to economic development and the country's development as a whole. Trying to achieve economic development in a relatively small and mountainous country where only 20 percent of the land is arable was an extremely tall order. On top of this physical constraint, North Korea had to channel a large portion (approximately around 20 percent of the total national budget) of the budget into defense (see Table 1). This huge expenditure on defense had direct consequences to economic development. Nonetheless, in a situation where capital necessary for growth could only come from within the country's self-contained and self-

<sup>51</sup> The parallel development of defense and non-defense sectors was chosen as the official Party policy in the Fifth Plenary Meeting of Central Committee of KWP (Korean Workers' Party) in December 1962.

reliant economic structure, North Korea's huge defense burden became an absolute barrier to economic development, because as defense expenditures increased, the portion allocated to non-defense sectors such as light industry and agriculture became increasingly smaller. One of the most difficult problems that North Korea encountered pursuing this kind of development strategy was an energy problem. According to its self-reliance policy, North Korea built its energy supply structure centered on coal (see Table 2).

**Table 2.** North Korea's Sources of Energy Supply: unit 1000 TOE<sup>52</sup>

|                    | Coal         | Oil        | Hydraulic   | Total Supply  |
|--------------------|--------------|------------|-------------|---------------|
| 1972               | 19,885 (85%) | 749 (4%)   | 2,681 (11%) | 23,315 (100%) |
| 1977               | 24,690 (83%) | 1,247 (4%) | 3,909 (13%) | 29,846 (100%) |
| 1983               | 29,384 (77%) | 2,779 (7%) | 5,808 (16%) | 37,971 (100%) |
| 1987               | 31,244 (72%) | 3,355 (8%) | 8,523 (20%) | 43,122 (100%) |
| 1992 <sup>53</sup> | 32,520 (75%) | 3,555 (8%) | 7,332 (17%) | 43,407 (100%) |

Source: IEA (International Energy Agency) (1992), Energy Statistics and Balances.

As Table 2 indicates, coal is the most important source of energy in North Korea. When North Korea started to launch economic development programs after the Korean War, many other nations had a similar energy supply and consumption structure based on coal. Moreover, since North Korea had abundant deposits of coal, utilizing its own natural resources went well with its development strategy of self-reliance. However, the energy source of the world economy shifted from coal to oil in the 1950s, as oil was more efficient and had a far wider range of application than coal. North Korea could not shift its energy source because it feared that it

<sup>52</sup> Ton of Oil Equivalent

<sup>53</sup> IEA (1993) Balances of non-OECD countries 1991-1992, 379.

would lose its economic sovereignty by integrating into the socialist economic bloc, CMEA. The U.S. economic embargo, which was imposed on North Korea in 1948, accentuated North Korea's economic isolation. In the 1990s, North Korea had undergone severe economic crisis. During the entire decade, North Korea experienced negative growth, and according to North Korea's own report, the 1999 government budget was half that of 1989.<sup>54</sup> At the heart of the North Korean economic crisis is its energy shortage.

As the Soviet Union rapidly abandoned socialism after the failed coup of August 1991, diplomatic relations between the newly created CIS (Commonwealth of Independent States) and the DPRK worsened. After the coup, the Yeltsin government cut off its economic support and asked the DPRK to trade in hard currency at world prices. As a result, trade between the CIS and the DPRK fell dramatically (see Table 3). Since the DPRK had relied on the former Soviet Union for approximately a third of its crude oil supply, petroleum products, coking coal, and parts for machinery and equipment, this reduction in the supply of energy and tech-

nology was felt throughout the entire DPRK economy. As we can see, and as North Korea continually brings up the energy issue as its most critical economic problem, solving the energy problem is the one of the most critical issues in the North Korean economy.

Looking from this angle, it is not too difficult to imagine that North Korea, which is facing economic isolation and endeavoring under the self-reliant development strategy, has put much effort into solving its energy problem by itself. North Korea also has to resolve the huge burden of its defense expenditure. In this respect, nuclear energy is likely to be considered as a solution for solving two outstanding problems (energy and defense) in North Korean economic development. In fact, developing nuclear power is perceived to be "killing two birds with one stone" for North Korea because it has considerable deposits of uranium, a fundamental and basic resource for nuclear development, and using its own natural resources is well in line with its self-reliant development strategy. On the other hand, nuclear weapons, a by-product of its nuclear program, are potent strategic weapons that could help North Korea to reduce the cost of defense significantly.

Considering these possible motivations for nuclear development, North Korea's penchant for nuclear energy is obvious. North Korea's nuclear program began as early as 1955, and the program was accelerated in the mid-1960s and the late 1980s.<sup>55</sup> As we can see from the above argument, North Korea's nuclear program was launched neither because of its hostility toward the United States nor any aggressive intention directed at neighboring

**Table 3.** The DPRK's Crude Oil and Coking Coal Imports from the USSR/Russia: 1988-92

|             | (Unit: 1000 tons) |      |      |      |      |
|-------------|-------------------|------|------|------|------|
|             | 1988              | 1989 | 1990 | 1991 | 1992 |
| Crude Oil   | 640               | 506  | 410  | 42   | 190  |
| Coking Coal | 1,037             | 939  | 827  | 184  | 0    |

Source: Japanese External Trade Organization, *Kita Chosen n Keizai to Boeki no Tenbo* (Prospect for the North Korean Economy and Trade) 1991. p. 73 for 1988 and 1993. p. 52 for 1989-92. Reprinted from Lim Kang-taeg's Ph.D. dissertation, *North Korea's Foreign Trade (1962-1992)*, State Univ. of New York at Albany. Dept. of Economics, 1996.

<sup>54</sup> Chung Young Chul, *Bukhan ui Kaehyuk, Kaebang* (North Korea's Reform and Opening) (Seoul: Sunin, 2004), 132.

<sup>55</sup> In January 1962, North Korea built a civilian-use IRT-2000 research reactor at Yongbyon. A nuclear research lab was established in February 1964. Please refer to "North Korean Nuclear Developments: An Updated Chronology" (<http://cns.miis.edu/research/korea/nuc/chr4789.htm>) for a complete chronology of North Korean nuclear development.

countries such as South Korea or Japan. North Korea's nuclear development should be understood in the context of North Korea's self-reliant development strategy and its stubborn adherence to maintaining national sovereignty. In this perspective, North Korea's nuclear program should be interpreted as North Korea's defensive and self-rescue measure rather than its inherent wickedness or evilness. Hence, attempting to force North Korea to give up its nuclear program by pushing regime demise or regime change policies, as some North Korea experts recommend, would only succeed in causing North Korea to abandon its reform program and concentrate its efforts on utilizing its nuclear capability, because North Korea would likely prefer to choose a strategy that maintains its national sovereignty rather than giving itself up to a greater power.

The confrontation on the Korean Peninsula must be resolved in a peaceful manner, because the alternative would not only lead to devastating destruction for North and South Korea, but it is also likely to extend to other neighboring countries. However, as an alternative to military and diplomatic confrontation, the peaceful resolution of the Korean War, a peace treaty between the DPRK and the United States, normalization of diplomatic relations between the two countries, and lifting of sanctions would indubitably not only reduce tensions on the peninsula, but also facilitate North Korea's economic reform process and ultimately turn the enemy into an economic and security partner.

## Bibliography

### English-language Publications

- Eberstadt, Nicholas and Judith Banister, *The Population of North Korea*. Institute of East Asia Studies (Berkeley: University of California, 1992).
- Eberstadt, Nicholas, *Korea Approaches Unification* (New York: M.E. Sharpe, 1995).
- \_\_\_\_\_. "The DPRK as an Economy Under Multiple Severe Stresses: Analogies and Lessons from Past and Recent Historical Experience," *Korean Journal of National Unification*, December 1, 1997a.
- \_\_\_\_\_. "Hastening Korean Reunification: The Writing on the 38th Parallel," *Foreign Affairs*, March/April, 1997b.
- \_\_\_\_\_. *The End of North Korea* (Washington, DC: AEI Press, 1999).
- \_\_\_\_\_. "Economic Recovery in the DPRK: Status and Prospect," *International Journal of Korean Studies*, vol. IV, no. 1 (Fall/Winter 2000), 15-35.
- Eberstadt, Nicholas and Richard J. Ellings, *Korea's Future and the Great Powers* (Seattle: University of Washington Press, 2002).
- Eberstadt, Nicholas, The Persistence of North Korea, *Policy Review*, October 1, 2004.
- \_\_\_\_\_. "Pyongyang's Option: 'Ordinary' Stalinism," *Far Eastern Economic Review*, March 21, 2005a.
- \_\_\_\_\_. "Economic Implications of a 'Bold Switchover' in DPRK Security Policy," *The Korean Journal of Defense Analysis*, April 20, 2005b.
- \_\_\_\_\_. "Economic Implications of a Fundamental Shift in North Korean Security Policy," *Asia Policy*, No. 2, (July 2006).
- Hodgson, Geoffrey M., *Economic and Utopia* (London: Routledge, 1999).
- Lippit, Victor, *The Economic Development of China* (New York: M.E. Sharpe, 1987).
- Merrill, John, "North Korea's Halting Efforts at Economic Reform," in Chong-sik Lee and Se-Hee Yoo, *North Korea in Transition* (Berkeley:

- Institute of East Asian Studies, 1991).
- Moon, Chung-in, ed., *Understanding Regime Dynamics in North Korea* (Seoul: Yonsei University Press, 1998).
- Noland, Marcus, "The North Korean Economy," US-Korea Academic Symposium, 1996.
- \_\_\_\_\_. "Why North Korea Will Muddle Through," *Foreign Affairs*, July/August 1997.
- \_\_\_\_\_. *Economic Integration of the Korean Peninsula* (Washington, DC: IIE Press, 1998).
- \_\_\_\_\_. *Avoiding the Apocalypse: The Future of the Two Koreas* (Washington, DC: IIE Press, 2000).
- \_\_\_\_\_. *North Korea After Kim Jong Il* (Washington, DC: IIE Press, 2004).
- Noland, Marcus and Stephan Haggard, *Famine in North Korea: Markets, Aid, and Reform* (Washington, DC: IIE Press, 2007).
- North Douglass C., "Structure and Performance: The Task of Economic History," *Journal of Economic Literature*, 16(3) (September, 1978).
- Park, Phillip, *Self-Reliance or Self-Destruction?* (New York: Routledge, 2002).
- Wilber, James, ed., *The Political Economy of Development and Underdevelopment* (New York: McGraw-Hill, 1989).
- White, Gordon, "North Korean *Juche*: The Political Economy of Self-Reliance," in Bienefeld, Manfred, and Godfrey, Martin, eds., *The Struggle for Development: National Strategies in an International Context* (New York: John Wiley and Sons, 1982).
- Chosun Rodongdan Chulpansa, 1996).
- Kim Jong Il, *Kim Jong Il Jusak Sunzip* (Selected Works of Kim Jong Il 1-14) (Pyongyang: Chosunrodongdang Chulpansa, 1995-2000).
- Kim, Yeon Chul, *Bukhan Kyongjaekwanriui Sungkyukhwa Chunmang* (Characteristics of North Korea's Economic Reform and its Prospect) (Seoul: Humanitas, 2002).
- Kyungje Yeonkoo* (Study on Economy), (Pyongyang: Pakhwasa Chulpansa, 1961-2004).
- Lee, Dong Koo, "Nakakchungsimjaenuen Kyongjaesaupue daehan Kukau Tongilchukkwanrigyungtae (The Cabinet is North Korea's Unified Form of Management in Economy)," *Kim Il Sung Jonghap daehak hakboe* (summer 2001).
- Lee, Jeong Chul, *Sahoejui Bukhanui Kyungjaedonghak kwa Chungchicheje* (The Economic Dynamics and Political System of Socialist North Korea), Ph.D. dissertation, Dept. of Political Science, Seoul National University (2002).
- Lee, Tae Sup, *Bukhanui Jipdanjuuichuk Balchun Chulyakhwa Suryeong Chekyeui Hwakrip 1956-1967* (The Collectivist Development Strategy and the Establishment of the Suryong System in North Korea, 1956-1967), Ph.D. dissertation, Dept. of Political Science, Seoul National University (2001).
- Pak, Hak-soon, *Kim Jong Il Sidaeu Kukakikoo* (National Organs in Kim Jong Il's Era) (Seoul: Sejoing Yeonguso, 2000).

### Korean-language Publications

- Chosunrodongdnag Chulpansa, *Wedahan Suryong Kim Il Sung Dongjiui Bulmyului Hyuckmyung Upjuk 15* (Great Leader Kim Il Sung's Revolutionary Achievement), Vol. 15 (Pyongyang: Chosun Rodongdan Chulpansa, 1999).
- Kim, Il Pyung, *Communist Politics in North Korea* (in Korean) (Seoul: Hanwool, 1986).
- Kim Il Sung, *Kim Il Sung Jusak Sunzip* (Kim Il Sung Works 1-42) (Pyongyang: