

**NORTH KOREAN ECONOMIC REFORMS AND THE ROLES OF SOUTH KOREA,
U.S, CHINA, JAPAN AND RUSSIA**

By

HWANG, Tae Wook

THESIS

Submitted to
KDI School of Public Policy and Management
In partial fulfillment of the requirements
for the degree of

MASTER OF PUBLIC POLICY

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Approval as of November 21 , 2008

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ABSTRACT

NORTH KOREAN ECONOMIC REFORMS AND THE ROLES OF SOUTH KOREA, U.S, CHINA, JAPAN AND RUSSIA

By

HWANG, Tae Wook

North Korea is a largely closed society. Through various measures of economic policy, North Korea will be able to raise its living standards and greatly improve food security. Six years have already passed since North Korea started to reform its economy in order to bring about favorable conditions for economic rehabilitation. However, North Korea still does not have sufficient conditions for enforcing overall reforms and opening economic policies. That is, these reform measures have meanings in the aspect of setting up pre-conditions for market-oriented reforms, but it is too early to assess that the economic reform itself is propelling the marketization. Therefore, this paper endeavors to analyze North Korean economic reforms and examine some ideas for the possible policies in the North Korean economy focusing on marketization, export promotion and inducement of foreign capital.

On the other hand, North Korean economic reforms are closely related to the roles of South Korea, U.S and other neighboring countries (China, Japan, and Russia). When these countries provide a peaceful resolution for supporting North Korean economic reforms, it will not only contribute meaningfully to encourage the economic openness of currently closed North Korea, but also help improve the degree of stability in the Korean peninsula. Hence, this paper examines why neighboring countries should cooperate and what are the required roles of neighboring countries for successful North Korean economic reforms.

Specifically, three things are very important for North Korea to accelerate its economic reforms. First, the U.S should ease the economic sanctions against North Korea and stop blocking North Korea from joining the international financial institutions such as World Bank, International Monetary Fund, and Asian Development Bank. Second, South Korea and China should support North Korea to implement its economic reforms continuously through their cooperation. Third, U.S and neighboring countries should play the active roles to support North Korea to be a normal and equal member of international society by using any necessary measures.

TABLE OF CONTENTS

ABSTRACT	I
TABLE OF CONTENTS	III
LIST OF TABLES	IV
LIST OF FIGURES	V
Chapter 1 INTRODUCTION	1
1.1 BACKGROUND	1
1.2. PURPOSE	4
1.3. SCOPE AND METHODOLOGY	5
Chapter 2 Analysis of North Korean Economic Reforms	5
2.1 AN OVERVIEW OF THE NORTH KOREAN ECONOMY	6
2.2 THE JULY 1ST ECONOMIC REFORMS	7
2.3 MAIN PROBLEMS OF THE NORTH KOREAN ECONOMIC REFORMS	10
2.4 CURRENT CHALLENGES OF THE NORTH KOREAN ECONOMIC REFORMS	14
Chapter 3 New Economic Policy Directions for Successful Economic Reforms	16
3.1 MARKETIZATION	18
3.2 EXPORT PROMOTION / INDUCEMENT OF FOREIGN CAPITAL	24
Chapter 4 The Required Roles of Neighboring Countries for Supporting North Korean Economic Reforms	29
4.1 THE ROLES OF SOUTH KOREA: SOUTH-NORTH ECONOMIC COOPERATION	30
4.2 THE ROLES OF OTHER NEIGHBORING COUNTRIES: U.S, CHINA, JAPAN, RUSSIA	35
4.2.1 The Roles of the U.S: Further Relief of Economic Sanctions	35
4.2.2 The Other Countries: China, Japan, and Russia	41
Chapter 5. Conclusion	46
APPENDICES	50
BIBLIOGRAPHY	62

LIST OF TABLES

Table 1 Main Contents of July 1 st Economic Reforms in North Korea.....	8
Table 2 The Actual Foreign Trade Records of North Korea	18
Table 3 The List of Key Measures for System Transition.....	20
Table 4 The Change of North Korea-China Trade	26
Table 5 The Change of North Korean Won – Dollar Exchange Rate	27
Table 6 Official Meetings between South and North Korea	34
Table 7 U.S Trade with North Korea in 2004 – 2007.....	37
Table 8 China’s Merchandise Trade with North Korea, 1995-2007	42
Table 9 Japan’s Merchandise Trade with North Korea, 1995-2007.....	44

LIST OF FIGURES

Figure 1 Real Annual Growth in North Korea's GDP	6
Figure 2 The Official Price System and Making Black-Market in North Korea	21
Figure 3 The Effect of Increase of Income.....	23
Figure 4 Relative Importance of Trade with Major Countries in North Korea.....	28
Figure 5 South Korean Merchandise Trade with North Korea	31
Figure 6 A Payoff Matrix between South and North Korea.....	32

Chapter 1 INTRODUCTION

1. 1 Background

North Korea is a unique dynastic and autocratic communist state in the world. The economy of North Korea is a centrally planned economy. For example, much of the economy is state owned and large amounts of standard statistical data about the economy are still treated as state secrets. In particular, as of 2007, North Korea's economy has remained one of the world's most highly centralized and planned. Moreover, North Korea has become increasingly isolated since the early 1990s following the collapse of the former socialist bloc. Severe economic difficulty resulted in negative economic growth from 1990 to 1998. For instance, the years 1995 to 1997 were named "the period of the arduous march" and the year of 1998, "the desperate march for socialism", reflecting the nation's desperate economic situation. In addition, no country recently has been as notoriously branded as North Korea, which has been portrayed as a failed rouge state and a member of an axis of evil proliferating nuclear weapons, violating basic human rights, and starving its own people while pursuing an unrealistic goal of a strong and prosperous nation (*kangsongdaeguk*) through the "military-first" policy. On the basis of this characterization, North Korea has experienced a severe famine since 1990s and has not taken any support from the international community.

Fortunately, North Korean government has encouraged some market-oriented reforms in the early years of this decade in the wake of the severe famine that afflicted the country in the mid-to late 1990s.¹ Specifically, North Korea launched a number of comprehensive economic reforms on July 1st, 2002. An attempt to create Chinese-Style Special Economic Zones is representative of North Korea's movement towards capitalism. Moreover, aiming to alleviate its prolonged economic problems, North Korea implemented new economic management policies in July 1st of 2002(see **Appendix 1**). Recently, however, there have been signs of some backtracking on reforms by the North Korean leadership as they have sought to reassert central control over the economy.² The reason is because North Korean leaders think that the political regime will be able to collapse as they open up its economy and reform its economic system. In addition, a necessary prerequisite for the maintenance of North Korean political regime has been an effective quarantining from the outside world. As a consequence of the government controlling economic policy while pursuing quarantine from the outside world, North Korean economy has become increasingly isolated from that of the rest of the world. Now, therefore, what is the most needed to North Korea is Kim Jung-II's "New Thinking" like former Soviet leader Mikhail Gorbachev's *perestroika* (restructuring). That is, North Korea should resolutely select new policy options good for

¹ Marcus C. Noland, "*The Future of North Korea is South Korea(Or Hope Springs Eternal)*", World Economics, 2007

² ICG, "*North Korea: Can the Iron First Accept the Invisible Hand?*", Brussels: International Crisis Group, April, 2005

economic rehabilitation.

On the other hand, North Korea needs to be assisted by neighboring countries including South Korea and U.S in order to accomplish the economic reforms successfully. Of course, an essential prerequisite for this is that North Korea abandons the nuclear development and ensures denuclearization in the Korean Peninsula. There is no doubt that North Korea's economic rehabilitation would contribute to relieving tension on the Korean peninsula, fostering a beneficial economic environment in Northeast Asia. Indeed, the rehabilitation of the North Korean economy is now an issue absolutely central to the future security and prosperity of Northeast Asia. If so, despite the fact that it is not expected that North Korea will, in the near future, undertake radical economic reform and political changes (which could include the introduction of a market economy), international communities should continue economic support for North Korea to accelerate its economic transition.³ Consequently, it is required for South Korea, U.S and other neighboring countries (China, Japan, and Russia) to play important roles for North Korean successful economic reforms.

³ Jong-Woon Lee, "*North Korea's Economic Reform Under an International Framework.*", Seoul :KIEP Working paper, February, 2002

1.2. Purpose

The purpose of this paper is to analyze North Korean economic reforms and examine new policy directions in the North Korean economy for accomplishing successful economic reforms. If changes of policy in the North Korean economy are taken into consideration to help improve the stability in the Korean peninsula, it will be meaningful to suggest the conditions and methods to execute successful economic reforms. Successful economic reform here is defined as a policy which can induce North Korea to acquire market mechanisms without overturning the regime with minimal downside effect.⁴ Therefore, this paper focuses on investigating the feasible economic policy for North Korea's successful economic reforms.

At the same time, this paper explores the required roles of South Korea, U.S and other neighboring countries (China, Japan, and Russia). That is because the issue on North Korean economic reforms is closely related to the interests of these countries. That is also because the assistance of the international community is necessary in order to achieve North Korean economic reforms successfully.

⁴ Kim, Young Yoon, "A Study on the reality and prospect of economic reform in North Korea: tasks for successful transformation of the North Korea System", Seoul: Unification Institute, 2007

1.3. Scope and Methodology

This paper mainly analyzes North Korean economic reforms and presents new policy directions in the North Korean economy. Also, this paper examines the required roles of South Korea, U.S and neighboring countries. For this, this paper refers to web sites, special reports, several research institutions related to North Korean economy, and also important countries' policies on North Korea. In addition, journals, theses, research papers and books are also surveyed. Based on those methods and focuses, this paper consists of five chapters. Chapter 2 analyzes rough features, main problems and current challenges of North Korean economic reforms. Then, Chapter 3 examines which economy policy is the most effective in North Korea in order to implement successful economic reforms. In Chapter 4 some suggestions are made out the required roles of important countries for North Korea's successful economic reforms. Finally, Chapter 5 provides the overall summary and concludes.

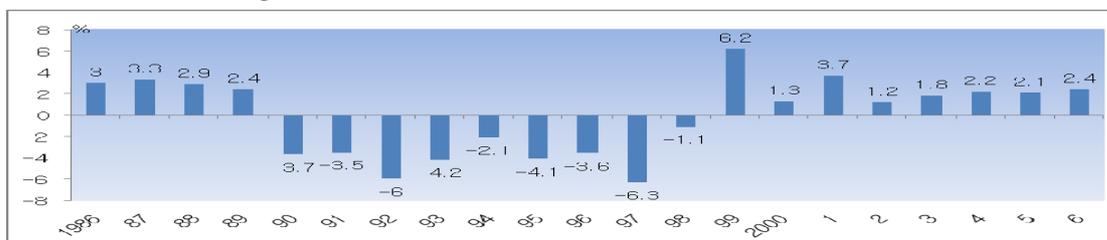
Chapter 2 Analysis of North Korean Economic Reforms

North Korean began some economic reforms in order to rehabilitate its economy from July 1st, 2002. The assessments on these economic reforms are very diverse. From now, this paper analyzes the North Korean economy and its economic reforms focusing on main problems and current challenges of economic reforms.

2.1 An Overview of the North Korean Economy

The North Korean economy is one of the world's most isolated and bleak.⁵ By standard statistical measures, North Korea is the world's most militarized society, and domestic propaganda incessantly proclaims the virtues of "military-first" policies. If comparable statistical measures were available for politicization, North Korea might rank first on this criterion too. In addition, it can be characterized by state ownership of means of production, centralized economic planning and command, and emphasis on military development. The economic system is designed to be self-reliant and closed. Currently, North Korea faces a dilemma as its economy continues to stagnate. Goods are being unequally distributed, and much of the population is suffering from severe privation of basic necessities. Moreover, North Korea has been experiencing an ongoing food crisis for more than a decade. Although the worst of economic crisis seems to have now passed, the North Korean economy is still greatly dependent on foreign assistance (South Korea, China and UN World Food Program) to barely escape from starvation.

Figure 1 Real Annual Growth in North Korea's GDP



Source : Bank of Korea and Global Insight

⁵ Marcus C.Noland, "Avoiding the Apocalypse: The Future of the Two Koreas", Institute for International Economics, 2000

As shown in **Figure 1**, growth in estimated real gross domestic product (GDP) in the North Korean economy dropped into negative numbers for most of the 1990s before beginning to recover in 1999. In 2004 to 2006, growth has been continuing up slightly from earlier years at about 2%. In substance, the economy is expanding moderately. However, it is still below its 1989 level.

To sum up, the inefficiency of North Korea's centrally planned economy, especially its promotion of state-owned industry, along with high military spending – about 15-25% of GDP – pushed the economy into crisis. In addition, North Korean economic difficulties have continued up until today. Fortunately, North Korea has initiated some economic reforms that include raising wages, allowing prices to better reflect market values, and opening foreign trade zones for international investment. However, the North Korean economic reforms failed to achieve the anticipated result.

2. 2 The July 1st Economic Reforms

In July 1st (2002), North Korea introduced a series of economic reforms. The purpose of these economic reforms was to encourage motivation of the common people by increasing wages and prices. That was based on the fact that more income leads to stronger purchasing power and a differentiated wage system could be one effective monetary incentive. Specifically, the

July 1st economic reforms included increases in prices and wages, partial abolition of rationing system, abolition of exchanged coupons, realistic readjustment of exchange rates, strengthening of self-supporting accounting system of corporations, reinforcing material incentives, and increasing the autonomous distribution rate of agricultural products.⁶ The contents of July 1st economic reforms are summarized as the following (**Table 1**):

Table 1 Main Contents of July 1st Economic Reforms in North Korea

Area	Specific Area	Main Contents
Management of the Economy	Consciousness	- New ways of thinking - Encouragement of consciousness and behavior
	Law, Institution	- Enactment or revision of the laws concerning the economy : Law of People's Economic Planning, Law of Loss Compensation, Inheritance Law, Agriculture Law, Law for Foreign Investment Banks, Treasury Law, Accounting Law, Commercial Law
Macro Economy	Price, Wage	-Realization of prices and wages
	Treasury	- Abolition of subsidies - Reduction of the budget system organizations - Collection of National Payment according to earned income - Enactment of National Company Profit - Change of the Local Payment System

⁶ Young-Sun Lee and Deok Ryong Yoon, "The Structure of North Korea's Political Economy: Changes and Effects", Seoul: KIEP Discussion Paper, March, 2004

Industry	Agriculture	<ul style="list-style-type: none"> - Improvement of Unit Management System, Reduction of the size of the unit - Introduction of Pojeon Damdang-je - Abolition of the Foods Rationing System
	Production in Company	<ul style="list-style-type: none"> - Strengthening of responsibility of management - Allowance of Trade Market for Company - Enlargement of Autonomous Management System
Merchandising, Distribution	Commercial Management	<ul style="list-style-type: none"> - Establishment of Goods Supply System excluding foods - Introduction of Consignment Sale System in the State-owned Stores - Allowance of rice and industrial goods sales in the marketplace
	Distribution	<ul style="list-style-type: none"> - Establishment of the General Market - Allowance of the selling Counter Business
Foreign Economy	Special Economy Zones	<ul style="list-style-type: none"> - Additional opening of (Shineuiju), Mt. Geumgang, Gaesung
	Trade Management	<ul style="list-style-type: none"> - Foreign Trade by City, Country, and Company Level (Decentralization)
	Law and Institution for Foreign Trade	<ul style="list-style-type: none"> - Actualization of the exchange rate - Installation of the Foreign Currency Exchange Place - Change of the Foreign Payment System

Source: Korea Institute for National Unification

The July 1st economic reforms undertaken by North Korea were generally associated with four measures. First, the government abolished the coupon system for food rations, relaxed price controls, thereby allowing supply and demand to determine prices. In order to meet the

rise in prices, the government also hiked wage levels. Second, the government abandoned the artificially high value of the North Korean won, depreciating their currency from 2.2 won to \$1 US to 150 won to \$1 US. This measure was aimed at inducing foreign investment and providing export incentives for domestic firms. Third, the government decentralized economic decisions. Measures entailed cutting government subsidies, allowing farmers markets to operate, and transplanting managerial decisions for industry and agriculture from the central government into the hands of local production units. Fourth, the government pressed forward with special administrative and industrial zones to induce foreign investment. For instance, the Sinuiju Special Administrative District was a proposal for an open economic zone for foreign businesses designed to exist completely outside North Korea regular legal strictures. The Kaesong Industrial District was another project designed in particular to attract small and medium-sized South Korea businesses, and the Kumgang Mountain site provided hard currency from tourism.

2. 3 Main Problems of the North Korean Economic Reforms

There are totally different views on the North Korean economic reforms. That is, the July 1st economic reforms taken by North Korea can be seen negative as well as positive. Of course, when conducting a new policy, advantage and disadvantage may occur, so North Korea was not an exception. It was an unavoidable process when socialistic countries conduct economic

reform. Here, this paper mainly explores main problems of the North Korean economic reforms.

First, the economic reforms dovetailed with North Korea's "military first" policy. For example, in process of the economic reforms, North Korea gave the primacy to the development of the defense industry over the agricultural and light industries. In other words, military indicators continued to play a larger role than public ones in the overall North Korean economic structure. As a consequence, North Korea could not improve the food availability. That is, as Kim Jung-Il gave first priority to the military, the rest of the population suffered.⁷ In addition, the exorbitant military expenses and the huge volume of military spending became a severe burden for the North Korean economy.⁸

Second, inflation was the most important cause of negative effects in July 1st economic reforms. Under the reforms, overall prices were skyrocketed. For example, the price of rice rose by 550 times, for corns 471 times, for diesel oil 38 times, and for electricity 60 times. Hereupon, wages were also raised but not enough to keep step with high consumer prices.

⁷ In January 2007, the communist party's central committee reportedly asked families to "voluntarily" offer food to the army, since the food shortage in the people's army was severe. Yang, Jung A, "*Citizens Exploited as the Nation Cannot Produce its Own Income*", The Daily NK(Internet edition), January 24, 2007

⁸ Some military experts argue that the North Korean defense industry shares 30 percent of total national production and the production volume of defense enterprises surpass the production volume of civilian industries. See Choo Suk Suh(2002), op.cit., pp.28-30

Wages rose by 18 times for labors and 20 times for managers.⁹ These price and wage reforms caused households to face uncontrolled consumer inflation, and many people ended up suffering from poverty. This poverty led to various kinds of social problems including illegal behaviors. In addition, inflation brought discrimination of incomes and broadened the gap between the haves and have-nots. In the end, as a consequence of inflation, North Korea backtracked on some of its economic reforms by prohibiting private sales of grains and reviving a centralized rationing system in the fall of 2005.

Third, July 1st economic reforms were met with disinterest from neighboring countries, especially U.S, because these countries had lost faith in the potential of these reforms due to the North Korea's pursuit of secret uranium-based nuclear program at that time. Moreover, North Korea's withdrawal from the Non-Proliferation Treaty (January 10, 2003) following KEDO's decision to stop providing crude oil (November 14, 2002) to the North Korea relegated the economic reforms to the backburner, as North Korea increasingly focused its energies on the six-party talks designed to resolve the nuclear crisis.¹⁰ Recently, inexplicable actions such as this have been provoked by North Korea. For example, almost immediately after negotiators had issued the September 19, 2005, Six-Party Statement in which North

⁹ Hong, Ink-pyo, "A *Shift Toward Capitalism*", East Asia Review: Winter, 2002, p.96

¹⁰ Chong-Ryel BAE, "*The First Ten Years of Kim Jong-il's Economic Policy*", International Studies Review: volume 5, Number 2, October, 2004

Korea ostensibly committed itself to abandoning all nuclear weapons and existing nuclear programs, North Korea began backtracking and within two months announced a boycott of future Six-Party Talks.¹¹ Also, North Korea carried out its first nuclear test on October 9, 2006, despite warnings not to do so even from China, their major ally.

Fourth, the food situation was further complicated by internal economic policy changes. As a matter of fact, these internal policy changes could be expected to impact the availability of food on both the supply and demand sides. However, these policies did not attain the expected results. On the supply side, it was hoped that the increase in the relative price of grains would spur additional supply. Yet North Korean agriculture was highly input-intensive. So, it made extensive use of chemical fertilizers and insecticides, electrically powered irrigation, and so on. In the event, the ultimate impact of the reforms on agricultural yields was strongly influenced by what happens in the industrial sector. On the demand side, the North Korean government appears to be trying to ensure survival rations through the public distribution system (PDS). The increase in agricultural procurement prices was presumably undertaken to increase the amount of food entering the PDS. However, while PDS prices have remained largely unchanged since 1 July 2002, market prices have increased significantly.

¹¹ The Economist, "Asia: The deal that wasn't North Korea", London: September 24, 2005, p.81

2. 4 Current Challenges of the North Korean Economic Reforms

Currently, North Korea seems to perceive itself as being in a policy dilemma. In particular, the dilemma is caused by the instability between the North Korea's "military first" policy and its desire to pursue a stable economic reform along with the opening policy. This has been the main factor behind the North Korean economy's present state. As stated above, North Korea has focused on the "military first" policy than the economic reform and opening policy. However, in 2008, North Korea is placing more emphasis on feeding its people. For example, joint newspaper editorial (January 2008) by the Communist Party, military, and youth militia stated that "at present, no other task is more urgent or more important than solving the people's food problem and eating problem."¹² The real situation of North Korea's food crisis is shown in **Appendix 2**. At the same time, in January 2008, Kim Jung-Il stated, "The most important and urgent issue for us now is to bring about a turnabout in the building of the economy and in the lives of the people."¹³ Also, in 2007, President Lee Myung-Bak stated in his plan, "Vision 3000: Denuclearization and Openness", that if North Korea denuclearizes and opens, his administration will help to make North Korea's national income \$3,000 per person within ten years. The plan, however, does not provide an alternative if North Korea

¹² BBC Monitoring Asia Pacific, "*Full text of North Korea's 2008 New Year's joint editorial*", London: January 2, 2008, p.1

¹³ Kim Ung-ho, "*Main Attack Front in Building a powerful state: Rodong Sinmun*", Translated Open Source Center, January 19, 2008

does not denuclearize.¹⁴ So, North Korea at this point in time faces the most typical economic trade-off between “guns and butter”. To put it another way, the major question with regard to North Korea’s choice is whether North Korea will retain the “guns” (nuclear weapons) or give them up in order to obtain the “butter” (economic rehabilitation).

In order to solve the devastating situation which the country faces, first of all, North Korea should choose “butter” (economic rehabilitation) rather than “guns” (nuclear weapons). Then, effective economic policy should be performed with pursuing system transformation such as marketization. Of course, North Korea might be reluctant to transform its system into a market system. It may, however, be noted that this choice would be made mainly by the economic and political conditions. These conditions are closely related to support from neighboring countries. Therefore, it is not too much to say that the future of North Korea depends on the policies of neighboring countries, especially the U.S., rather than its own policy direction or internal development.¹⁵ On the other hand, in order to take support from neighboring countries, North Korea should reassure them about the security of the North Korean regime. For this, the first thing for North Korea to do is to resolve the nuclear issue through diplomatic means.

¹⁴ Analysis team of the Daily NK, “*Lee Myung-Bak’s Administration: A Breakthrough in North Korea’s Opening*”, The Daily NK (Internet edition), December 12, 2007

¹⁵ Park, Hyeong-Jung, “*Ability, Direction, Speed, and Tendency for change in North Korea*”, Seoul: Korea Institute for National Unification, 2001, p.167

Chapter 3 New Economic Policy Directions for Successful Economic Reforms

Until now, this paper analyzed the North Korean economic reforms. To sum up, although North Korea has finally begun to implement the economic policy for the purpose of economic reforms, this economic policy has to date failed to meet expectations. Moreover, North Korea's provocative behavior such as nuclear crisis makes it difficult for countries seeking engagement with it to facilitate economic reforms. However, although the nuclear crisis is the important issue in order to facilitate the North Korean economic reforms, resolving that crisis is only the first step. For North Korea eventually to become a more stable and normal country, it also needs to complete the transition from a command economy to a market economy. As mentioned above, the most serious problem with North Korean economic policy is the fact that it does not have enough elements of system transition such as marketization. Indeed, all of the solutions to the North Korean Problem would seem to require a successful economic transition within North Korea itself. In addition, even after the economic reform, the shortage of food, energy, and raw material have remained with no clear signs of increase of production in the overall industry. In particular, the serious lack of electricity and other social overhead capital has made it almost impossible to increase supply. So, in case of the North Korean economy, it is impossible to make success or overcome the shortage of the economical situation with "reform within the system", that is, "operating the economy in order to produce as much profit as possible within the framework of socialist

principles”.¹⁶ Also, the World Economy Organization diagnosed that the least-developed countries (LDCs) – the national income per person is approximately one thousand dollar – should maintain minimum 5% constant growth rate in order to enter into the take-off stage. In this aspect, in order to perform the economic reforms successfully in North Korea, the internal environment across the economy should advance toward more practical marketization.

On the other hand, North Korea has currently faced a large scale of trade deficit (**Table 2**). In order to straighten out this point, North Korea should perform import restraint and export promotion simultaneously. Under the current circumstance, however, export promotion policy should be preceded. It is because when domestic resource supply capacity is insufficient, restraining importation of necessary resources for production and consumption becomes a problem. That is, the most immediate problem in the North Korean economy is the lack of supply. Therefore, as North Korea expands the foundation of production through the export promotion and inducement of foreign capital, it will have the capability to improve productivity in the overall industry. If so, North Korea would be able to escape from the current economic structure which has a low growth rate and build a basis for a fast growing economy.

¹⁶ “Let’s Enhance the Dignity and Prestige of the Republic Along with the Great Banner of Son-gun”, The Rohdong Shinmun, January 1, 2003.

Then, from now, this paper explores new policy directions in the North Korean economy focusing on marketization, export promotion and inducement of foreign capital.

Table 2 The Actual Foreign Trade Records of North Korea

(unit: million \$, %)

Year	Export		Import		Total		Balance of Trade
	amount	Increasing rate	amount	Increasing rate	amount	Increasing rate	
1999	515	7.9	965	9.3	1,480	2.6	-450
2000	556	8.0	1,413	46.4	1,969	33.0	-857
2001	650	16.9	1,620	14.6	2,270	15.3	-970
2002	735	13.1	1,525	-5.9	2,260	-0.4	-790
2003	777	5.5	1,614	5.9	2,391	5.8	-837
2004	1,020	31.3	1,837	13.8	2,857	19.5	-817
2005	998	-2.1	2,003	9.1	3,002	5.1	-1,005
2006	947	-5.2	2,049	2.3	2,996	-0.2	-1,102

Source: KOTRA

3. 1 Marketization

Before we embark upon an analysis of marketization, let us briefly examine the concept of marketization. The marketization is a core element of socialist economic reform. Largely,

market is divided into two categories. One is a market by system, and the other is a market by price. Here, marketization is defined as the introduction and diffusion of the market mechanism.

Some specialists regard North Korea's marketization as it has already been started from the July 1st economic reforms. However, North Korea's marketization can be understood not as a top-down state-led process but rather as a bottom-up process in response to state failure. In consequence, the macroeconomic situation has not normalized yet. Therefore, North Korea should pursue the marketization in the following directions.

First, market activities should be greatly expanded, and market functions should be strengthened. To put it another way, it is important to gradually increase the commercial transactions in the market. For this purpose, the system transition is needed. Here, system transition means the progress from command economy to market economy. Then, what needs to be done in order to transform into the market economy? The list of key measures is summarized as the following (**Table 3**).

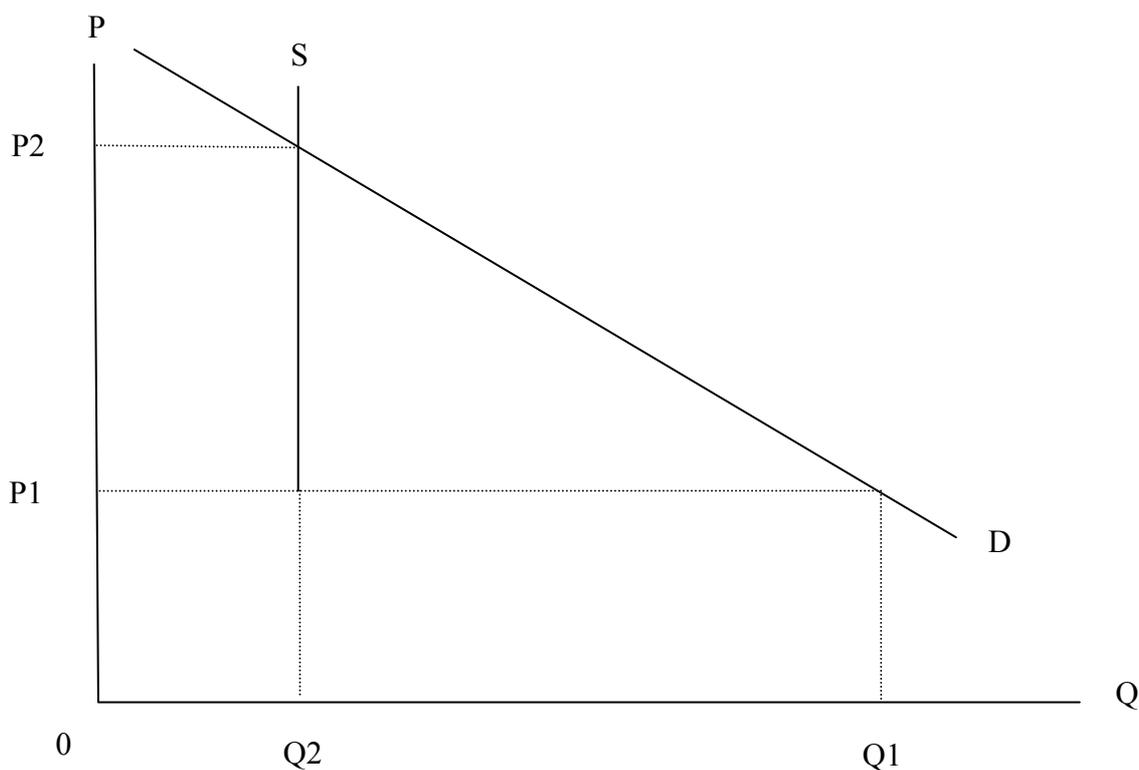
Table 3 The List of Key Measures for System Transition

Measure	Details
Privatization	<ul style="list-style-type: none"> • The private ownership of the means of production → Motivate firms to maximize efficiency • Legalizing various forms of private, quasi-private, and cooperative business
Liberalization	<ul style="list-style-type: none"> • The entrance or withdrawal from a market, job choice, founding companies, and business activities should be liberalized.
Bank Reform	<ul style="list-style-type: none"> • Creating a two-tier banking system → Central bank (top tier) <li style="padding-left: 20px;">: Concern only with the monetary policy and supervision of the rest banking system → Commercial bank (lower tier) <li style="padding-left: 20px;">: Take deposits and provide credit for investment.
Remainder	<ul style="list-style-type: none"> • Scaling down the share of the military in GDP → Impact on employment, and on the demand for military goods and services (i.e., uniforms, trucks, weapons, etc.) → Create many new firms plus employment on diverse construction and infrastructure projects.

Second, a free-pricing system should be constructed in order to allow competitive pricing through the principle of demand and supply. This will replace the official price system by the

government. In fact, despite the decentralization of pricing authority after July 1st economic reforms, North Korean government has still retained pricing authority in a fundamental sense. As a result of this, resources could not be allocated efficiently according to market principles. Moreover, the official price system by the government has brought about consumer-lining-up and a black-market. It could be simplified in **Figure 2.**

Figure 2 The Official Price System and Making Black-Market in North Korea

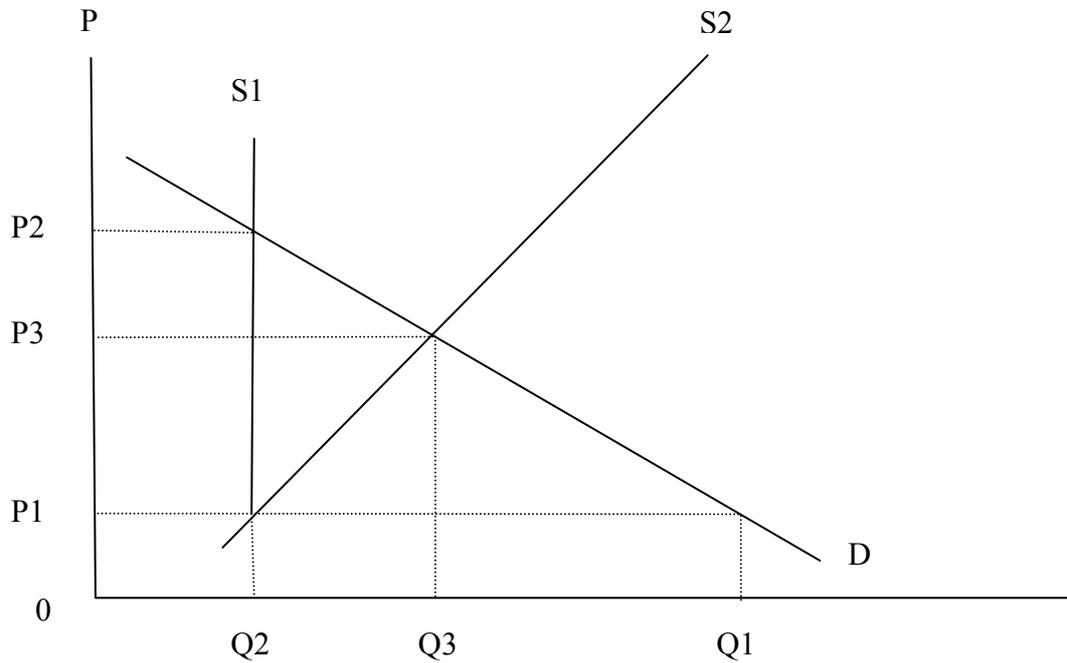


Assuming that the supply curve is vertical in North Korea, the price is determined at P_1 due to the low-price policy (or rationing system). Since the supply is fixed (Q_2), the demand increases to Q_1 . So, the excess demand emerges as much as $Q_1 - Q_2$. At this time, this excess

demand unavoidably enforces on consumer-lining-up or serves as a momentum to form a black-market. That is, excess demand makes a strong motivation for consuming even with a high price, leading to formation of a black-market. In this case, the price of black-market becomes P2.

In order to fix the free-pricing system, key measures for marketization as mentioned above should be preceded, and the shortage of supply should be solved. If so, North Korea will obtain the effect of increase of income. It could be summarized in **Figure 3**. If the market competition is allowed, the supply curve moves from S1 to S2. So, under the free-pricing system, the official price increases from P1 to P3, and the black-market price reduces from P2 to P3. As a consequence, the double price is settled, and the income increases (Q2→Q3). However, if North Korean government restricts the supply due to the supply shortage, severe inflation will occur since the supply curve is nearly vertical. North Korea already had a bitter experience of inflation in the July 1st economic reforms. Therefore, it is important to solve the supply shortage for the successful free-pricing system.

Figure 3 The Effect of Increase of Income



Third, it is necessary to prepare various complementary measures for the assorted problems concerning marketization as follows. : ① inflation, ② unemployment, ③ negligence according to decentralization, ④ guidance for sense of value in order to overcome ideological confusion, ⑤ bringing up and training for company managers, and ⑥ educational efforts to make people adjust to the market economy.¹⁷ The policy directions for the marketization of North Korea which is mentioned previously is probably unrealistic to do everything at once. Nevertheless, it is desirable when these actions take place simultaneously in a short term.

¹⁷ Lee, Seo-Haeng, “Doi-Moi Policy in Vietnam and the prospect of the Opening in North Korea”, The Results of Opening Policy in Vietnam and Its Meaning to North Korea, 2003 Research Contract of the Education Center for Unification, 2003, pp.112-113.

3. 2 Export Promotion / Inducement of Foreign Capital

In order to achieve successful economic reforms for the economic rehabilitation, North Korea requires an enormous amount of hard currency and investment. However, *Juche*, North Korea's autarkic ideology, and the collapse of its industrial production has resulted in a minimal level of commercial relations with other countries in the world. It has not encouraged foreign trade, and North Korea has had chronic shortages of foreign exchanges. Fortunately, after the July 1st economic reforms, North Korea has devised the revitalization of trade through decentralization of trade. For example, North Korea allowed the trade activity organized by the central government to the local government and companies. Also, North Korea has made an effort to attract foreign capital through improving related systems to induce foreign direct investment (FDI) and holding a conference of investment explanation for overseas Koreans. As a result of this, the trade with other countries has been rising in recent years. According to trade statistics compiled by the International Monetary Fund (IMF), North Korea has at least some trade with 80 of the 182 countries or customs territories that report their trade data to the IMF.¹⁸ However, North Korea still has a poor balance of trade since it never exports enough to pay for its imports. In particular, as shown in **Table 4**, the degree of dependence upon trade with China is going to become a deeper chronic character in North Korean economy. Accordingly, the industrial production of North Korea is

¹⁸ International Monetary Fund, "*Direction of Trade statistics*", September, 2007

adhered by the structure that North Korea has to depend upon raw materials, energy, equipment and component in China. At the same time, North Korea has a limited ability to attract foreign investments because of the amount of debt that is owed to so many different countries and the nuclear proliferation issue. Owing to this circumstance, the current North Korean economy does not have a spontaneous foundation to produce.

Morocco, indeed, a country of similar size and in certain respects with economic characteristics similar to those of North Korea, suffered a similar fall in domestic output in the late 1990s, but a combination of increased exports and increased foreign borrowing allowed it to cover its trade deficit through imports. North Korea should learn a lesson from Morocco case. For North Korea, the foreign trade plays an important role in that it allows the country to import food, technology, and other merchandise that it is unable to produce in sufficient quantities at home. Therefore, there is no other way for North Korea than to pursue more actively the export promotion and inducement of foreign capital. For this, it is necessary for North Korea to accept the policy directions as follows.

Table 4 The Change of North Korea-China Trade

(unit: million \$, %)

Year	Export		Import		Total		Balance of Trade
	amount	increase rate	amount	increase rate	amount	relative importance	
2000	37	—	451	—	488	24.7	-414
2001	167	348.0	571	26.6	737	32.5	-404
2002	271	62.3	467	-18.1	738	32.7	-197
2003	395	46.1	628	34.3	1,023	42.8	-232
2004	586	48.2	800	27.4	1,385	38.5	-214
2005	499	-14.8	1,081	35.2	1,580	52.6	-582
2006	468	-5.8	1,232	13.6	1,699	56.7	-764

Source: KOTRA

First, it is necessary to increase export capacity. For the purpose of increasing export capacity, North Korea should take actions to devalue the exchange rate against the U.S dollar. As shown in Table 4, the current North Korean won – dollar exchange is very irrational. If North Korea devaluates its currency, it will cause the following effects. : ① a decrease in the amount of foreign currency and other materials for black-market and smuggling ; ② an increase of exporting in the official planned economy sector and inducing foreign investment ; and ③ an increase in the organic relationship between domestic and foreign prices.¹⁹

¹⁹ Kim, Young-Yoon, “A Study on the reality and prospect of economic reform in North Korea : tasks for successful transformation of the North Korea system”, Seoul: Unification Institute, 2007

Table 5 The Change of North Korean Won – Dollar Exchange Rate

(North Korean won / dollar)

1985	1990	1992	1994	1995	2000	2001	2002	2003	2004	2005	2006
2.43	2.14	2.13	2.16	2.05	2.19	2.21	153	145	139	136	141

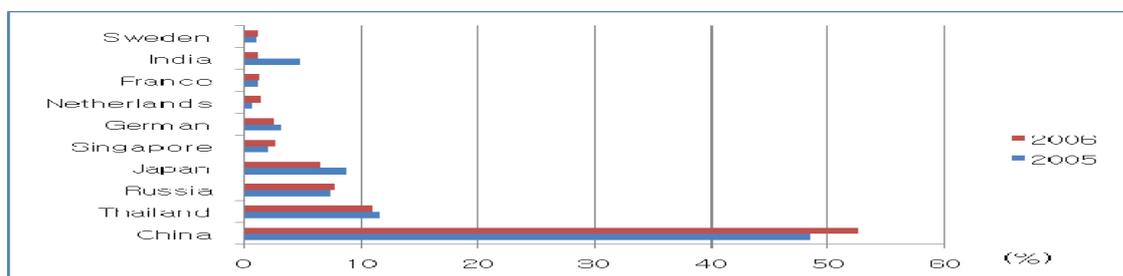
Source: Ministry of Unification

Second, it is necessary to enlarge the number of countries for trade. As shown in **Figure 4**, the degree of dependence on trade with China is very high. This may weaken the production foundation. To solve this problem, North Korea should construct partnerships with various foreign firms such as FDI or significant ownership stakes in North Korean business. Then, the expertise and market access of the partner firms will be available to upgrade North Korean production. Furthermore, more participation from various partners will not only increase the available capital but also reduce the unhealthy one-side dependency on China. At the same time, North Korea should create a number of new small firms in virtually all sectors. The reason is because many of these firms will no doubt fail quite rapidly, as is normal in well functioning market. However, some will survive to grow larger in the future, providing employment, incomes and exports to North Korea.²⁰ These new small firms will have the capability to promote export with the employment creation.

²⁰ Paul Hare, “*Industrial Policy for North Korea : Lessons from Transition*”, CERT (Center for Economic Reform and Transformation), September, 2006

Third, supplementary measures that can help to promote exports and induce foreign capital are needed. To begin with, North Korea should adopt a proper measure to do away with the practice of the elite’s spending on expensive and unproductive imported consumer goods. That is because scarce resources are unproductively wasted for luxuries or prestige projects, instead of finding their way into productive investments. Accordingly, North Korea should not only levy high taxes on high incomes, but also support industrials who are expected to reinvest their income into production. The latter has been done very successfully in South Korea, where the industrial conglomerates (*chaebol*) have been utilized as “private agencies of public purpose”.²¹ On the other hand, North Korean embassies around the world should expand their commercial task. That is, it is necessary to gather the market information in various countries and convey it back to its business community.

Figure 4 Relative Importance of Trade with Major Countries in North Korea



Source: KOTRA

²¹ Woo, Jung-en, “Race to the swift : State and Finance in Korean Industrialization”, New York : Columbia University Press, 1991

Chapter 4 The Required Roles of Neighboring Countries for Supporting North Korean Economic Reforms

Until now, this paper examined some policy directions in the North Korean economy in order to implement successful economic reforms. However, although North Korea performs the economy policy mentioned above, without assistance of neighboring countries North Korea cannot accomplish the successful economic reforms. As a matter of fact, currently, except South Korea and China there are little countries that make investments in North Korea. The reason is because most of the advanced countries hesitate to invest in North Korea due to the inferior investment environment. Moreover, North Korea is counted out from the investable countries due to the international political issues such as nuclear crisis. However, considering North Korea's present capability, North Korea cannot make a successful economic reform without obtaining considerable international cooperation. Needless to say, South Korea unfortunately does not have enough capability to help the North Korean economic reforms on its own. In this regard, the most feasible approach to facilitate North Korean economic reforms is to create a framework of international cooperation. In order to obtain international cooperation, of course, North Korea should satisfy several preconditions – alleviate security concerns; pursue more proactively ideational, behavioral, and institutional changes in the economic domain; improve human rights; and demonstrate more credible international

behavior.²² In any case, South Korea and powerful neighboring countries has to play very important roles for the North Korea's successful reforms in order to reduce the instability caused by North Korea's economic problems and nuclear standoff. At this time, as for the approach-toward-North Korea, South Korea and powerful neighboring countries shall avoid the "carrot-or-stick" debate and rather concentrate on building up a more practical plan to facilitate North Korean economic reforms. Then, from now, this paper examines the required roles of important countries for successful North Korean economic reforms.

4. 1 The Roles of South Korea: South-North Economic Cooperation

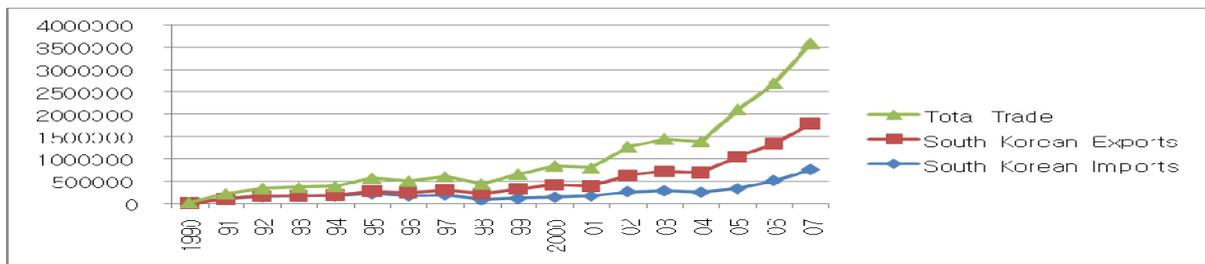
To begin with, this paper examines the roles of South Korea. Until now, economic relations have been a major route for opening relations between the two Koreas. In particular, South Korea has worked to activate the economic cooperation programs with North Korea since the mid-1990s. As a consequence of these efforts, the volume of inter-Korean trade during the last decade has been increased dramatically (**Figure 5**). Specifically, under the "Sunshine Policy" of former President Kim Dae Jung and the "Policy for Peace and Prosperity" of former President Roh Moo-hyun, South Korea has permitted its corporations to pursue business interests in North Korea. In addition to the business relationships, South and North Korea have been reconnecting the Gyeongui (Seoul-Sinuiju) and Donghae (East Sea) railway

²² Moon, Chung-In, *"Managing Collateral Catastrophe : Rationale and Preconditions for international economic support for North Korea"*, Seoul: KIEP, February, 2004

lines and adjacent highways. Nevertheless, South Korea has been criticized over policy toward North Korea because South Korea's policy keeping economic relationship with North Korea was inconsistent and ineffective during the last decade. So, President Lee Myung-bak indicated in his inaugural that South Korea's attitude toward inter-Korean relations should be pragmatic, not ideological. He also reiterated his plan to provide assistance in order to raise the per capita income of North Korea to \$3,000 within ten years if North Korea denuclearizes.²³ For the purpose of North Korea's successful economic reforms, South Korea is a key player but in a delicate position. Then, where does South Korea's role lie on?

Figure 5 South Korean Merchandise Trade with North Korea

(unit: \$ in thousands)



Source: Ministry of Unification, KOTRA

First, it is important for South Korea to make North Korea cooperate. To begin with, the profit and loss from the South-North cooperation or non-cooperation could be simplified as

²³ Inauguration Speech of President Lee Myung-bak, February 25, 2008, on website of the South Korean Ministry of Foreign Affairs and Trade. [<http://www.mofat.go.kr/index.jsp>]

Figure 6. Assuming that both players (the South and the North) cannot make bargains since there is no way to hold another player to an agreement, Nash equilibrium is [Non-cooperation, Non-cooperation].²⁴ However, a social optimum is [Cooperation, Cooperation] because it is the solution which maximizes the total benefits to the players. Thus, in order to secure collective benefits even when it is not in their best immediate private interests to do so, it is necessary to have the infinitely repeated bargaining.²⁵

Figure 6 A Payoff Matrix between South and North Korea

		< South Korea >	
		Cooperation	Non-cooperation
< North Korea >	Cooperation	1, 1	-2, 2
	Non-cooperation	2, -2	-1, -1

As shown in **Table 6**, the official meetings between South and North Korea have been increased from the first summit in 2000. Currently, however, the official meetings have been decreased again. It means that the chances of infinitely repeated bargaining are reduced. Therefore, South Korea should elicit bargaining from North Korea for cooperation. For this,

²⁴ A Nash equilibrium is a set of strategies, one for each player, such that, given the strategies being played by the others, no player can improve on their payoff by adopting an alternative strategy

²⁵ An infinitely repeated bargaining is one in which the stage bargaining has an unspecified number of repetitions.

it is necessary for South Korea to establish a standing framework for bargaining with North Korea. At the same time, South Korea should take a leading role in engineering international cooperation. To this end, there is need for skillfully mobilizing the support of other nations.

Second, it is necessary for South Korea to create a direct trading system with North Korea.²⁶

After this system finally sets up, it will contribute to the activation of trade between South and North Korea by creating direct channels of communication. Moreover, the majority of inefficiency such as problems in communication, advancing claims, inconvenience of payment, time and cost will be resolved. For example, agreement on the place of origin will reduce the dual paperwork or indirect payment, and it will also eliminate the possibility of fraud exports from the third countries. In the long run, a direct trading system will help the North Korea's rehabilitation. At the same time, it will contribute to the increase of interests of related South Korean companies. It may, however, be noted that South Korea should establish a supporting system in order to activate direct trade. To put it another way, it is required to install the channels for negotiation, reconnect the mail and phone lines, introduce a direct payment system, coordinate various kinds of conflicts, and prevent the risk of suits in the WTO concerning the direct trading system.

²⁶ A direct trading system means that South and North Korea could trade directly with each other without any mediating third country.

Table 6 Official Meetings between South and North Korea

	Politics	Military	Economic	Humanitarian, Social, Culture	Total
2000	6	4	3	2	15
2001	2	2	3	1	8
2002	4	9	14	5	32
2003	5	6	17	8	36
2004	2	5	13	3	23
2005	10	3	11	10	34
2006	5	4	8	6	23
2007	3	5	10	6	24
Total	37	38	79	41	195

Source: Ministry of Unification

Third, South Korea should support expansion of the Gaesong Industrial Complex (GIC). The GIC is national project designed to enhance peace and to build economic regionalism through cooperation on the Korean peninsula and East Asia. In addition, the GIC in North Korea is a symbol of inter-Korean economic cooperation and can play a critical role in linking the country to the East Asian market. Fortunately, this joint effort between the South and North is exploiting rapidly, despite tension over North Korea's testing of ballistic missiles and a nuclear weapon. The GIC serves both geopolitical and economic purpose.

Geopolitically, the GIC provides a rapprochement channel between the two Koreas, a method of defusing tensions, a way to expose North Korea to external ideas and ways of doing business. Economically, the KIC provides small and medium sized South Korean firms with a low-cost supply of labor for manufacturing products, jobs for North Korean workers, and needed hard currency for North Korea. In addition, it can serve as an empirical test to prove whether South-North economic cooperation can contribute to the enhancement of political and military peace on the Korean peninsula. As a matter of fact, South-North economic cooperation is not simply an economic issue, but also has direct connections to military and political security issues. Therefore, South Korea should encourage more profit-oriented direct investment in North Korea by South Korean companies. For example, it is necessary to offer incentives for investing in North Korea instead of China. At the same time, South Korea should emphasize transparency in financial transactions with North Korea in order to support the growth of effective GIC.

4. 2 The Roles of Other Neighboring Countries: U.S, China, Japan, Russia

4.2.1 The Roles of the U.S: Further Relief of Economic Sanctions

For the purpose of accomplishing U.S goals and protecting U.S national interests, the U.S conducts three legs of grand strategy – economic, diplomatic, and military means – toward North Korea. In particular, the U.S has used the economic sanctions as leverage and to send a

message of disapproval for various activities by North Korea. As a result of these sanctions, the U.S currently does not maintain any diplomatic, consular, or trade relations with North Korea. And the U.S does not have normal trade relations – Most Favored Nation (MFN) – status. Also, as shown in **Table 7**, the U.S trade with North Korea is quite limited. In particular, North Korea is on the most restricted list of countries for U.S exports (Country Group E list) of items such as computers, software, national security – controlled items, items on the Commerce Control List, and service or repair of such items.²⁷ Moreover, the U.S maintains various economic sanctions on North Korea for four primary reasons : ① North Korea is considered as a threat to U.S national security; ② North Korea is designated by the Secretary of State as a state supporter of international terrorism; ③ North Korea is a communist state; and ④ North Korea proliferates weapons of mass destruction (see **Appendix 4**).

²⁷ [<http://w3.access.gpo.gov/bis/ear/ear-data.html>]

Table 7 U.S Trade with North Korea in 2004 – 2007

SITC Category	U.S Exports				U.S Imports			
	'04	'05	'06	'07	'04	'05	'06	'07
Cereals and Cereal Preparations	10,285	2,277	0	1,728	0	0	0	0
Fixed Vegetable Fats and Oils	4,259	0	0	0	0	0	0	0
Vegetables	3,461	1,806	0	0	0	0	0	0
Preparations of Cereal, Flour, Starch or Milk; Bakers Wares	2,459	0	0	0	0	0	0	0
Misc. Grain, Seed, Fruit	0	1,573	0	0	0	0	0	0
Dairy Products and Birds' Eggs	1,157	0	0	0	0	0	0	0
Misc. Textile Articles	191	0	0	0	0	0	0	0
Organic Chemicals	0	0	0	0	1,418	0	0	0
Woven Apparel	0	0	0	0	77	0	0	0
Tools, Cutlery	0	0	0	0	0	3	0	0
Books, Newspapers	0	0	3	0	0	0	0	0
Total	23,750	5,757	3	1,728	1,495	3	0	0

Source: U.S Department of Commerce accessed through World Trade Atlas

Fortunately, some favorable omens have been shown in the U.S-North Korea relation from last year (2007). For example, in October 2007, it was reported that President Bush approved the lifting of some sanctions imposed on North Korea under an act governing human trafficking. This easing allowed the U.S to provide assistance in educational and cultural exchanges to the extent that the aid does not damage its national interest.²⁸ In addition, in

²⁸ Yoon, Won-sup, "U.S Eased Sanctions on North Korea in 2007", Korea Times, February 12, 2008

February 2008, the New York Philharmonic Orchestra performed in Pyongyang.²⁹ Recently, North Korea demolished the cooling tower at North Korea's Youngbyon nuclear facility. It means that North Korea used the most powerful bargaining chip in order to get economic assistance and the security guarantee from the U.S.

At this point, it is necessary for the U.S to consider whether economic sanctions have actually worsened economic conditions in North Korea and whether the poor economic conditions have changed policies in North Korea. Historically, the economic sanctions had little effect on North Korea's behavior in the way that would achieve the U.S goals. On the contrary, U.S's soft-land policy toward North Korea made North Korea carry out economic reforms. Specifically, according to the engagement policy proposed by Perry Report in 1999, U.S induced change of the North Korean policy. At the same time, irrespective of whether the U.S economic sanctions worsened North Korea's economy, the poor economic state of North Korea has indirectly affected U.S national interests. For instance, it has necessitated humanitarian aid and has generated a deficit in trade that North Korea has attempted to fill by dealing in illegal drugs and missiles. Thus, from this time forth, the U.S policy with respect to North Korea should focus on increasing engagement to include positive economic incentives for the North Korea's rehabilitation over the long term.

²⁹ Daniel J.Wakin, "North Koreans Welcome Symphonic Diplomacy", New York Times, February 27, 2008, p.1

First, it is necessary to normalize economic relations with North Korea. Although it cannot be expected soon, the normalization of economic relations will have a number of positive effects on the U.S national interests as well as the North Korean economy. From the viewpoint of North Korea, providing normal trade relations status (MFN) and the General System of Preference (GSP) to North Korea will increase the price competitiveness of the country's exports in the U.S market. On the other hand, from the viewpoint of the U.S, the U.S companies interested in doing business in North Korea, especially establishing a company, will be able to work more actively. Indeed, some U.S business executives reportedly are traveling to North Korea for business purpose, and some U.S enterprises reportedly are working as subcontractors in the development of North Korea's Kaesong Industrial Complex (KIC).³⁰ Hence, the normalization of economic relations could cover investment and other U.S interests.

Second, the U.S should stop blocking North Korea from joining the international financial institutions (IFIs) such as the World Bank, International Monetary Fund, and Asian Development Bank. As a matter of fact, given that the U.S is the largest stakeholder in IFIs, its influence on these institutions' decision-making has been critical. IFIs will allow North Korea to receive development assistance, and eventually it will assist North Korea in its

³⁰ Koo, Kyung-hee, "*U.S Enterprises Participate in Developing the Gaesong Industrial Complex*", KOTRA: North Korea Team, January 30, 2004

rehabilitation and economic transition. As previously stated, the inducement of foreign investment is needed for North Korea's rehabilitation and transition. And, for inducing foreign investment, it is important to build international assurance that the host country will provide a stable and favorable environment for foreign investors. In this regard, the role of IFIs cannot be underestimated. To put it another way, without assurance from IFIs, foreign firms will not invest in North Korea. In addition, the various IFIs' economic support for North Korea will be able to prevent the North Korea's economic over-dependence on any particular country, especially China. It will enable the U.S to have advantageous standpoint over the North Korean issues in the future.

Third, the U.S should provide assistance in any of a variety of forms. In particular, it is deeply necessary to provide fuel and food aid. In the Six-Party Talks, North Korea always appears to be most concerned with obtaining fuel and food aid in exchange for concessions on its nuclear program. In order to provide assistance to North Korea, it is necessary to delete North Korea from a list of countries barred from U.S assistance under successive foreign aid appropriations laws. In the case of recent foreign aid appropriations, those countries named as ineligible for U.S direct assistance have been the same countries as those on the terrorism list. However, foreign aid appropriations laws do not apply the sanctions to countries on the terrorism list per se. Therefore, North Korea's removal from the terrorism list does not mean

the automatic lifting of various economic sanctions. In fact, sanctions were in most respects inferior to assistance through the experience of the last years. In the short run, of course, economic sanction can be very effective. In the long run, however, it loses its impact and becomes a liability. That is, the longer a sanction lasts, the smaller its effect, and the bigger the chance for a successful bypass. Thus, it is desirable for the U.S to omit North Korea from the list of countries named as ineligible for U.S direct assistance.

4.2.2 The Other Countries: China, Japan, and Russia

Although it is true that the role of South Korea and U.S is very important, North Korea's rehabilitation cannot be attained through only the effort of South Korea and U.S. In the light of geopolitics, one can say that all issues related to North Korea are closely connected with interests of powerful neighboring countries. Hence, the role of powerful neighboring countries (China, Japan, and Russia) is very important like South Korea and U.S. Then, we will examine the required roles of these countries from now.

First, China remains North Korea's chief ally. In addition, China has been the North Korea's largest trading partner and supplier of concessional assistance since the collapse of the Soviet Union. **Table 8** shows China's merchandise trade with North Korea. In this regard, it would

be no exaggeration to state that China's alliance with North Korea during the last decade helped prevent the collapse of the North Korean economy.

Table 8 China's Merchandise Trade with North Korea, 1995-2007

(unit: \$ in millions)

Year	China's Imports	China's Exports	Total Trade	China's Balance
1995	63.609	486.037	549.646	422.428
1996	68.638	497.014	565.652	428.376
1997	121.610	534.411	656.021	412.801
1998	51.089	356.661	407.750	305.572
1999	41.722	328.634	370.356	286.912
2000	37.214	450.839	488.053	413.625
2001	166.797	570.660	737.457	403.863
2002	270.863	467.309	738.172	196.446
2003	395.546	627.995	1,023.541	232.449
2004	582.193	794.525	1,376.718	212.332
2005	496.511	1,084.723	1,581.234	588.212
2006	467.718	1,231.886	1,699.604	764.168
2007	581.521	1,392.453	1,973.974	810.932

Source: Chinese (PRC excluding Hong Kong) data as supplied by World Trade Atlas.

Moreover, China arguably has more influence on North Korea during its policy decision-making process than any other nation. Consequently, China's economic assistance and preferential bilateral trade with North Korea will be crucial for the North Korean economic reforms. However, it is not enough to accelerate the North Korean economic reforms. Indeed, first of all, North Korea currently needs to promote its capacity to implement its economic policy. In this respect, China can play an important role to teach how to get rid of political

obstacles that prevents the economic openness and reforms. In addition, the Korean peninsula possesses great strategic interests of China. For example, North Korea's economic rehabilitation and increased inter-Korean economic cooperation would have positive effects on the economic development of China. Furthermore, long-term economic benefits can be generated for China through formulating a trilateral North Korea-China-South Korea economic cooperation. Therefore, China should cooperate more actively such as providing strong support at the government level and promoting the direct investment activities of Chinese enterprises.

Second, Japan and North Korea maintained significant economic ties for well over a decade. In fact, Japan was second only to China among North Korea's top trading partners from the end of the Cold War. However, Japan's economic relations with North Korea have declined sharply as tension over North Korea's nuclear and missile programs has spiked. After North Korea test launched several missiles in July 2006, Japan imposed strict unilateral sanctions. As indicated in **Table 9**, total trade between Japan and North Korea has fallen since 2006. In particular, Japan had no imports from North Korea in 2007. In addition, Japan and North Korea have never established official diplomatic relations. If Japan and North Korea will normalize diplomatic relations, North Korea will be able to use concessionary funds from

Japan to restore agricultural facilities and implement various socio-economic development projects that are urgently needed for North Korea's rehabilitation (see **Appendix 4**).

Table 9 Japan's Merchandise Trade with North Korea, 1995-2007

(unit: \$ in millions)

Year	Japan's Imports	Japan's Exports	Total Trade	Japan's Balance
1995	338.073	253.798	591.871	-84.275
1996	290.745	226.480	517.225	-64.265
1997	301.796	178.942	480.738	-122.854
1998	219.489	175.137	394.626	-44.352
1999	202.564	147.839	350.403	-54.725
2000	256.891	206.760	463.651	-50.131
2001	225.618	1,064.519	1,290.14	838.901
2002	235.840	132.645	368.485	-103.195
2003	174.390	91.445	265.835	-82.945
2004	164.299	88.743	253.042	-75.556
2005	132.277	62.505	194.782	-69.772
2006	77.776	43.816	121.592	-33.96
2007	0.000	9.331	9.331	9.331

Source: Japanese data as supplied by World Trade Atlas

On the other hand, an improvement in North Korea-Japan relations will contribute to regional economic cooperation, particularly in the areas of transportation and energy. Furthermore, there is no doubt that a normalization agreement between Japan and North Korea would certainly encourage Japanese private investment and multinational participation in regional cooperation projects. Therefore, Japan should put more effort into improving its relationship with North Korea.

Third, Russian reformed and the end of the cold war greatly reduced the priority of North Korea in the strategy of Russian foreign policy. Recently, however, relations between Russian and North Korea have been improving. In particular, Russia is upgrading its railway connections with North Korea and has been participating in an ambitious plan to build a trans-Korean railway. Moreover, Russia has gained unique and exclusive communications capabilities with North Korea based on the development of trust between the leadership of the two states at the highest political levels.³¹ However, Russia-North Korea relations also face some challenges. Since Russia shares a border with North Korea, Russia is critical to North Korean security. In addition, economic hardships in North Korea will push refugees across the border into Russian territory. Hence, Russian cooperation with North Korea would be necessary to enforce any security guarantee. On the other hand, North Korean industrial

³¹ Vorontsov, Alexander, “*Current Russian-North Korea Relations: Challenges and Achievements*”, The Brookings Institution Center for Northeast Asian Policy Studies, February 2007, p.24

facilities constructed with Soviet technical assistance account for 30 percent of total steel output, 40 percent of iron mine production, 50 percent of petrochemical production, 13 percent of chemical fertilizer production and 20 percent of textile goods. It means that Russian technical assistance is required for repairing and upgrading of North Korean industrial facilities. Thus, Russia's role is very important in the rehabilitation of North Korea's industry.

Chapter 5. Conclusion

Up to now this paper has looked at the North Korean economic reforms. In this connection, this paper has examined new policy directions in the North Korean economy. At the same time, this paper has explored the roles of neighboring countries for North Korea's rehabilitation and system transition. My purpose in this paper thus far has been to examine the economic policy directions in North Korea for accomplishing successful economic reforms and to explore the required roles of South Korea, U.S and other neighboring countries (China, Japan, and Russia).

Previous to the collapses of Soviet Union, poor domestic economic performance in North Korea was offset with infusions of Soviet aid. But after the collapses of Soviet Union in 1991,

the aid stopped and the North Korean economy was adversely affected. This situation was further complicated by severe food shortages that began in 1995-96 which continues up to today. Moreover, the official economy was nearly brought to a standstill because of the dramatic expansion of the private economy.³² Thus, people desperately needed some solutions to survive. For this reason, North Korea tried to reduce the non-official sector and improve the operation of the official sector. Hence, it is more reasonable to think that economic reforms in North Korea had no intention to transform into a market economy system but to normalize the official sector. In this respect, it can be said that economic reforms in North Korea is in an elementary stage. However, provided that the reform in this stage will be successful, North Korea can pursue more drastic reform in the future.

To begin with, North Korea should embrace overall economic reforms based on the market principle. At the same time, it is necessary for North Korea to pursue more actively the export promotion and inducement of foreign capital. To be sure, North Korea attempted to partially accept market mechanisms in the view of system through market expansion measures and the revision of the legal system. However, these measures were designed to prevent rapid change of the principles keeping North Korean society intact by reflecting the

³² The official economy refers to all economic activities occurring under central planning and the private economy is defined as all activities outside the planning structure. This definition follows the classification of first economy and second economy of Dennis O'Hearn ("*The Consumer Second Economy: Its size and Its Effects*", Soviet Studies: vol.32, April, 1980)

change from the bottom. It is not enough to accomplish a successful rehabilitation. As a matter of fact, North Korea is in dilemma because opening up its economy and reforming its economic system could lead to the collapse of the regime. Therefore, what is the most required to North Korea is Kim Jung-Il's "New Thinking" like former Soviet leader Mikhail Gorbachev's *perestroika* (restructuring).

On the other hand, economic reforms alone cannot rehabilitate the North Korean economy. Without international cooperation its prospects for sustaining reforms is grim. In order to induce international cooperation, of course, North Korea should resolve nuclear crisis. As long as nuclear crisis persists, U.S and other neighboring countries will not cooperate with each other for the North Korean economic reforms. However, it is also necessary for neighboring countries to consider the fact that North Korea is now concerning itself about any internal confusion and the potential shockwave to the security after the economic reforms. In this respect, South Korea, U.S and other neighboring countries (China, Japan, and Russia) should continue to cooperate for the market system development in North Korea. The reason is because strong international cooperation for the North Korean economic reforms will be able to gradually improve North Korea's internal conditions, thereby helping North Korea to become an important member in upholding peace and maintaining the stability of political state. In addition, when North Korea is cautiously adopting policy changes in order

to overcome its international isolation, it is important that neighboring countries create a favorable environment in which North Korea will be able to direct its efforts towards economic openness. Consequently, South Korea, U.S and other neighboring countries should actively take role in helping North Korea to become a normal and equal member in international society by taking necessary steps.

The conclusion which can be drawn from this study is as follows. First, South Korea should create more various “dialog channel” and a direct trading system with North Korea. Second, U.S should relieve further economic sanctions to North Korea. Specifically, it is necessary to normalize economic relations with North Korea. Also, it is time that U.S stopped blocking North Korea from joining the international financial institutions (IFIs) such as the World Bank, International Monetary Fund, and Asian Development Bank. Third, China and Russia should cooperate more actively such as providing strong support at the governmental level while Japan should put more effort into improving its relationship with North Korea.

Finally, I would like to close by proposing that “a grand bargain” among South Korea, North Korea and neighboring countries is urgently needed. Therefore, South Korea and neighboring countries need to pay more attention to actively cooperate with North Korea so that economic rehabilitation and the system transition of North Korea can take place.

APPENDICES

1. Changes in North Korea's Economic Management since 2002

2. North Korean Food Crisis since 2006

3. Economic Sanctions Imposed on North Korea

4. The Potential Contribution of the Japan's Concessional Development Fund to the North
Korean Economy

[Appendix 1] Changes in North Korea’s Economic Management since 2002

	Before the July 1 st Reform	After the July 1 st Reform
Price system	<p>→ Serious state-led price distortions:</p> <ul style="list-style-type: none"> * The prices of goods and services were determined by central state economic organs * The prices of consumer goods and agricultural products were maintained at prices considerably lower than those that would have been arrived at in a market system <p>→ A very large discrepancy between state-set prices and farmers’ market prices (over 10-100 times) :</p> <ul style="list-style-type: none"> * Consumer goods and food items in state-run stores had very limited availability due to supply problems * Almost every product was available at farmers’ markets, although the prices at these markers were much higher than those at state-owned stores 	<p>→ Price raising of most goods and services by 10-fold to 100-fold or even higher:</p> <ul style="list-style-type: none"> * Price raising aims to reduce price discrepancies through increasing government-set prices close to prices found at farmer’s markets * Price increases for services include electricity, transportation fares and rent. <p>→ The complete abolishment of the decades-long system of state subsidies for “price differentials” (the difference between the actual production cost and the retail price) :</p> <ul style="list-style-type: none"> * Production costs, international prices, and domestic supply and demand are the main considerations in determining prices. * North Korea’s fiscal burden increases, as does its inflation rate
Wage system	<p>→ Unrealistic wage levels :</p> <ul style="list-style-type: none"> * In the rationing system, the government was responsible for providing the general public with food, consumer commodities and housing nearly free of charge * Monthly wages were low * The flourishing of farmers’ markets and the expansion of the dual price system led to a drastic increase in living costs * More North Koreans were actively engaged in second economic activities since state-set wages were insufficient to pay for products sold at farmer’s markets 	<p>→ An increase in wage levels :</p> <ul style="list-style-type: none"> * The average monthly wage of North Koreans is reportedly increased by 18 times * The wage increases aim to compensate for the higher cost of living caused by the price hikes of goods and services <p>→ The introduction of a discriminatory wage policy :</p> <ul style="list-style-type: none"> * Wage levels are determined by an individual’s occupation, the quality of his/her work, personal contributions to the group and overall group accomplishment

	Before the July 1 st Reform	After the July 1 st Reform
State Planning Mechanism	<p>→ A rigid planning mechanism :</p> <ul style="list-style-type: none"> * Economic management was handled by the National Planning Committee on the basis of the ‘unified and detailed planning principle’ * State-level planning organizations were responsible for the production activities of all sub-economic units nationwide 	<p>→ The partial decentralization of the state planning system :</p> <ul style="list-style-type: none"> * The role of the National Planning Committee is reduced to formulating provincial targets for industrial production and major infrastructure construction as well as to managing strategically important projects of the national economy
Management of state-owned enterprises	<p>→ Tight control by national planning agencies over management activities of enterprises and factories :</p> <ul style="list-style-type: none"> * The exercise of independent management by enterprises was prohibited, leading to a reliance on the government for subsidies <p>→ A dependency on the state for the supply of raw materials :</p> <ul style="list-style-type: none"> * The trade of raw and supplementary materials was possible only through contracts between state-owned enterprises, not through a market system 	<p>→ The Partial liberalization of the decision-making process at state-owned enterprises (SOEs) :</p> <ul style="list-style-type: none"> * Through obligated to achieve production goals, state-owned enterprises are granted considerable autonomy in running their businesses <p>→ Emphasis on a self-supporting business system :</p> <ul style="list-style-type: none"> * Government subsidies previously given to state-owned enterprises are largely reduced <p>→ The establishment of raw material exchange markets</p>
Material Incentives	<p>→ A lack of material incentives for workers :</p> <ul style="list-style-type: none"> * Workers’ wages and their supply of food were distributed more or less evenly based on the work unit they belonged to, regardless of the quality of their work and their individual contribution * The distribution principle based on workload was in name only 	<p>→ The strengthening of the material incentive system to encourage labor productivity :</p> <ul style="list-style-type: none"> * The performance of SOEs is evaluated on the basis of business profits rather than production amounts * The government assigns more of its budget to profit-making factories and enterprises

Source: Korea Institute for International Economic Policy

[Appendix 2] North Korean Food Crisis Since 2006

Date	Condition of Food and Public Distribution
2006	<ul style="list-style-type: none"> - South Korea government totally stopped humanitarian aid right after the missile test and the nuclear experiment. - After the food damages in July 2006, total agricultural production in 2006 was estimated 2.8 million tons including 1.8 million tons of total food production of each province. - The fear that there would be another Arduous March in 2007 surged.
2007.01	<ul style="list-style-type: none"> - There was no distribution for New Year's Day (3 day amount of long-grain rice was distributed only in Pyongyang). - The amount of food supply to the military dropped to 60%.
2007.02	<ul style="list-style-type: none"> - After Chairman Kim Jong-Il's visit to major cities throughout the country and the release of rice for the military to the public, food price fell. - Total 4 day amount of food was distributed due to overlapping of Lunar New Year's Day and 2.16 holiday (birthday of Kim Jong Il).
2007.03	<ul style="list-style-type: none"> - The residents' rice purchasing power did not increase. - Restriction on rice trading in markets was intensified.
2007.04	<ul style="list-style-type: none"> - 2 day amount of food was distributed on April 15th (birthday of Kim Il Sung).
2007.05	<ul style="list-style-type: none"> - The price of rice went up from 800 Won/kg to 900~950 Won/kg, simultaneously around the country.
2007.06	<ul style="list-style-type: none"> - In major cities, rice was traded at 950~1,000 Won/kg - From late June, starvation to death began to occur.
2007.07	<ul style="list-style-type: none"> - The price of rice went up 1,200~1,300 Won/kg, nationally in mid-July. - All the regions including Hamgyung, Kwangwon, and Pyongan Provinces suffered from rice shortage.
2007.08	<ul style="list-style-type: none"> - Except some regions including Chugnjin, the nation suffered from flood. - After the flood damage, the price of rice increased up to 1,500~1,800 Won/kg

2007.09	<ul style="list-style-type: none"> - In Hwanghae Province, the price of rice hit the price 1,700 Won/kg (the highest price in history). - The price of corn increased to 550~650 Won nationwide including Pyongyang, Chungjin and Sinuiju area. - Inspection of rice trading in the market resumed.
2007.10	<ul style="list-style-type: none"> - Inspection of the minimum age for trading in the market begun around the nation. - The price of rice went down during the harvest season.
2007.11	<ul style="list-style-type: none"> - The price of rice dropped to 1,200~1,300 Won/kg, but the price of corn stayed at 450~600 Won/kg. - Agricultural production from individually cultivated farm patches decreased
2007.12	<ul style="list-style-type: none"> - Due to decline in production of each collective farm, food distribution time was delayed and the distribution amount was decreased. : Farmers concerned about that food would run out at the end of February.
2008.01	<ul style="list-style-type: none"> - At the end of food distribution, the food price trend rebounded. - There was a setback in food import because of drastically increased duties on food items by China and required report of SGS quality verification imported Chinese food products by North Korean custom house.
2008.02	<ul style="list-style-type: none"> - 20% of the families in rural were expected to run out of food on February, and 40% of those would be on late March - North Korea authority surveyed food possession of farmer's households.
2008.03	<ul style="list-style-type: none"> - Attendance rate decreased at munitions factories in Eunduk Country North Hamgyung Province and Chungjin Gimchaek Steel mill. - Farm workers attendance rate plummeted because of the food shortage in the breadbasket regions, which caused serious problems in preparing for farming season.
2008.04	<ul style="list-style-type: none"> - The second Arduous March has begun. - The price of grains skyrocketed: 2,800 Won/kg for rice, 1,800Won/kg for corn. - Speculation of rice conducted by some money owners increased, expecting the price would rise up to 3,000Won. : It became hard to find food in markets.

Source: Report on the food crisis in North Korea By Good Friends

[Appendix 3] Economic Sanctions Imposed on North Korea

Rationale	Restriction	Statutory Basis (Regulation)	Authority to Impose	Authority to Lift or Wave
General foreign policy reasons	Limits the export of goods or services	Export Administration Act of 1979	President, Secretary of Commerce	President, Secretary of Commerce
General foreign policy reasons	Limits proportionate share to international organizations which, in turn, expend funds in North Korea	Sec.307, Foreign Assistance Act of 1961	Statutory requirement	No waiver; exemption for certain IAEA programs
General foreign policy reasons	Prohibits assistance from defense appropriations	Sec.8042, Department of Defense Appropriations Act, 2007	Statutory requirement	No waiver
Diplomatic relations severed	Prohibits most foreign aid and agricultural sales under P.L. 480	Sec. 620(t), Foreign Assistance Act of 1961	Statutory requirement	No waiver
National security controls, communism	Limits the export of goods or services	Sec. 5, Export Administration Act of 1979	President	President
Communism	Prohibits foreign aid	Sec.620(t), Foreign Assistance Act of 1961	Statutory requirement	President
Communism	Limits proportionate share to international organizations which, in turn, expected funds in North Korea	Sec. 307, Foreign Assistance Act of 1961	Statutory requirement	No waiver; exemption for certain IAEA programs

Rationale	Restriction	Statutory Basis (Regulation)	Authority to Impose	Authority to Lift or Wave
Communism	Prohibits Export-Import Bank funding to Marxist-Leninist states	Sec.2(b)(2), Export-Import Bank Act of 1945	Statutory requirement	President
Communism	Prohibits support in the IFIs	Sec.43, Bretton Woods Agreement Act	Statutory requirement	Secretary of the Treasury
Communism	Limits the export of goods or services	Sec.5(b), Export Administration Act of 1979	Statutory requirement	President
Communism	Denies favorable trade terms	Sec. 401, Trade Act of 1974	Statutory requirement	President
Nonmarket economy and emigration	Denies favorable trade terms	Sec. 402, Trade Act of 1974	Statutory requirement	President
Nonmarket economy and emigration	Denies favorable trade terms	Sec. 409, Trade Act of 1974	President	President
Communism and market disruption	Denies favorable trade terms	Sec. 406, Trade Act of 1974	President	President
Communism	Denies Generalized System of Preferences designation	Sec. 502(b), Trade Act of 1974	President	President
Terrorism	Limits the export of goods or services	Sec. 6(j), Export Administration Act of 1979	Secretary of State	Secretary of State, after the President notifies Congress

Rationale	Restriction	Statutory Basis (Regulation)	Authority to Impose	Authority to Lift or Wave
Terrorism, proliferation	Prohibits Transactions related to defense articles and defense services	Sec.40, Arms Export Control Act	Secretary of State	Secretary of State, after the President notifies Congress. President may also waive per each transaction.
Terrorism, failure to cooperate with U.S. efforts	Prohibits transactions related to defense articles and defense services	Sec.40A, Arms Export Control Act	President	President, at annual review, or waived by the President if he finds it “important to the national interests of the U.S”
Terrorism	Prohibits most aid under the Foreign Assistance Act of 1961, Agricultural Trade Development and Assistance Act of 1954, Peace Corps Act, and Export-Import Bank Act of 1945	Sec. 620A, Foreign Assistance Act of 1961	Secretary of State	Secretary of State, after the President notifies Congress.
Terrorism	Prohibits imports	Sec. 505, International Security and Development Cooperation Act of 1985	President	President

Rationale	Restriction	Statutory Basis (Regulation)	Authority to Impose	Authority to Lift or Wave
Terrorism	Denies Export-Import Bank financing	Sec.2(b)(1)(B), Export-Import Bank Act of 1945	President	President
Terrorism	Opposes loans of funding through international financial institutions	Sec.1621, International Financial Institutions Act	Secretary of the treasury	Secretary of the Treasury(no waiver authority)
Terrorism	Oppose loans or funding through the International Monetary Fund	Sec. 6, Bretton Woods Agreement Act Amendments of 1978	Secretary of the treasury	Secretary of the Treasury(no waiver authority)
Terrorism	Prohibits bilateral assistance	Sec. 527, Foreign Operations, Export Financing, and Related Programs Appropriations Act, 2006	President	President, if he finds it in the national security interest, or for humanitarian reasons
Terrorism (though not explicitly stated as such)	Prohibits bilateral assistance	Sec. 507, Foreign Operations, Export Financing, and Related Programs Appropriations Act, 2006	Statutory requirement	No waiver

Rationale	Restriction	Statutory Basis (Regulation)	Authority to Impose	Authority to Lift or Wave
Terrorism	Limits export licensing for food and medicine; prohibits government financing for such exports	Secs.906, 908 Trade Sanctions Reform Act of 2000	Statutory requirement	President, based on national security interests
Terrorism	Limits provision of services to security forces, law enforcement, military, intelligence community	Sec.40, State Department Basic Authorities Act	Secretary of State	Secretary of State
Terrorism, Communism	Prohibits the acquisition of property in U.S for diplomatic mission	Sec.205, State Department Basic Authorities Act	Secretary of State	Secretary of State
Terrorism, excessive military expenditure, human rights violations	Prohibits the cancellation or reduction of certain debt	Sec. 501, Miscellaneous Appropriations, 2000	Statutory requirement	President
National emergency	Prohibits imports, exports, transactions related to transportation	Trading With the Enemy Act, International Emergency Economic Power Act	President	President
Proliferation of weapons of mass destruction	Prohibits a range of transactions –USG contracts, export licenses, imports into U.S	Sec.73, Arms Export Control Act	President	President

Rationale	Restriction	Statutory Basis (Regulation)	Authority to Impose	Authority to Lift or Wave
Proliferation of weapons of mass destruction: nuclear enrichment transfers	Prohibits foreign aid, military aid	Secs.101, Arms Export Control Act	President	President
Proliferation of weapons of mass destruction: nuclear reprocessing transfers, nuclear detonations	Prohibits foreign aid, military aid, USG defense sales and transfers, export licenses for USML goods and services, USG-backed credits, support in the IFIs, agricultural credits or financing, US commercial bank financing, licenses for export of certain goods and services	Sec.102, Arms Export Control Act	President	President
Proliferation of weapons of mass destruction: nuclear detonations	Prohibits Export-Import Bank financing	Sec.2(b)(4) of the Export-Import Bank Act of 1945	Statutory requirement	President
Proliferation of weapons of mass destruction: nuclear detonations	Prohibits Export-Import Bank financing	Foreign Operations, Export Financing, and Related Programs Appropriations Act, 2006	Statutory requirement	No waiver

[Appendix 4] The Potential Contribution of the Japan's Concessional Development Fund to the North Korea Economy

Areas		Forms of Economic Assistance	
Food aid / Technical support for agricultural and fishery sectors	Agriculture	Food aid, fertilizer supply, expansion and modernization of fertilizer plants, flood control, water conservation for agricultural use, mechanization of farming	
	Livestock	Breeding technology, construction of livestock food factories	
	Fishery	Restoration and modernization of fishing boats, improvement of fishery equipment, construction of fishery processing factories	
Normalization of industrial production	Power Plants	Normal operation	Improvement of power transmission and distribution facilities
		Expansion of power capabilities	Construction of small-sized power plants
	Supply of industrial goods	Mining	Modernization of mining equipment, expansion of transportation facilities
		Metals / Machinery	Technical assistance
		Chemistry	Restoration and expansion of petrochemical equipment
	Development of the IT industry and telecommunication sector		Support of IT equipment and facilities, provision of fiber-optic cable, technology assistance for wireless and international communication
Restoration of infrastructure	Transportation and communication	Railway	Modernization of railway facilities, maintenance of railroad stations, computerization of railway system
		Roads	Rehabilitation of roads
		Harbor / Airport	Maintenance of harbors, modernization of cargo facilities
		Telecom	Expansion of cable communication

Source: Developed from Chan-Woo Lee(2002)

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