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Chinese Policy toward the Two Koreas

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ABSTRACT

The Chinese policy toward the Korean Peninsula from the beginning of the Korean War in 1950 had been to keep it within the Chinese sphere of influence. As the occupation of the Korean Peninsula by a hostile nation would inevitably threaten China's national security it would not allow any foreign domination of Korean Peninsula. Therefore, China has consistently supported North Korea economically and militarily for the past half century. However, the Chinese policy toward South Korea was beginning to change as South Korea hosted the Olympic in 1988. North Korea also participated in the Olympic. China began to adopt an equal distance policy toward the two Koreas and established the diplomatic relations with the Republic of Korea (ROK) in 1992, an act of which was in fact the recognition of two governments in the Korean Peninsula. However, China insisted a peaceful reunification of two Koreas by opposing any attempt to reunify two Koreas by military means thus endorsing North Korean policy of reunification. When North Korea developed nuclear weapons in the 1990s and withdrew from the Non Proliferation Treaty (NPT) in 1992, China supported the Six-Nation Talks by hosting them in Beijing for the sake of denuclearization of North Korea. This paper reviewed the role of China in the six-party talks, participated by China, the United States, Russia, Japan and two Koreas. Following series of negotiations in the 1990s and the six-party talks from 2003 to 2007 ten joint statements and agreements came out. This paper attempted to analyze them in the context of Sino-North Korean relations as well as North-South Korean relations. It is the conclusion of this paper that China expressed its national interest to realize the nuclear-free Korean Peninsula. It is also China's interest that the two Koreas achieve the peaceful reunification. The Sino-South Korean relations has changed into a "strategic cooperative partnership" under the newly inaugurated government of Lee Myung-Back in Seoul.

Key Words: Sino-Korean Security Issues, North-South Korean Relations, Reunification of Two Koreas

Introduction

China has emerged as major power in the international politics of East Asia ever since it achieved a victory over the Guomindang (Nationalist) government and proclaimed the People's Republic of China (PRC) in October 1949. China also dispatched the Chinese People's Volunteer Forces to fight in the Korean War (1950-53) and rescue the Democratic People's Republic of Korea (DPRK, North Korea) as it was at the verge of collapse when the United Nations forces crossed the 38th parallel line and occupied most of North Korea in the fall of 1950. North Korea has been under the security umbrella of the People's Republic of China for more than a half century.

North Korea thus depends heavily on the PRC in its international diplomacy and national security, as well as its economy, following the establishment of diplomatic relations between the two countries. China also prevented the U. N. Security Council from taking sanctions against North Korea when it withdrew from the Nonproliferation Treaty (NPT) in March 1993. The North Korea-China Friendship Treaty, a virtual security pact concluded in July 1961, which enabled China to offer military assistance to North Korea, is still in effect. For a quarter of a century following the Korean War, the PRC adopted a rigid one-Korea policy in the diplomatic, military and economic fields. During this period, Beijing also provided Pyongyang with generous financial grants and loans and carried out a bilateral trade.

China was the major donor of economic and technical assistance to North Korea during the post-Korean War reconstruction of its economy. China provided a grant of 800 million yuan to restore North Korea's war-torn economy. North Korean leader Kim Il Sung also was able to negotiate successfully to receive in 1976 an estimated US$ 967 million in grants and loans from China. North Korea's trade with China accounted for 20% of its foreign trade throughout the 1970s and 1980s. As North Korea does not produce a single drop of oil, the major import item from China was crude oil. The China-Korea Friendship Pipeline, constructed with joint effort in January 1976, transported oil from Chinese Daqing oilfield to North Korea. When Chinese Premier Hua Guofeng visited North Korea in 1978, China agreed to increase its annual oil export to one million metric tons at the "friendship price" (US $4.50 a barrel), lower than international market price. The PRC also signed long-term trade agreements for the period of 1982-86 as well as for the period of 1987-91, which helped the DPRK's third seven-year economic development plan (1987-93). Beijing and Pyongyang held numerous economic meetings and concluded agreements in a variety of fields, such

as trade, hydroelectric power, navigation, communications, publications, educational exchanges, public health, and science and technology.

North Korean leader Kim Il Sung also visited China more than 40 times during his life time and had summit meetings with many Chinese leaders, including Mao Zedong, Zhou Enlai, Hua Guofeng, Deng Xiaoping, Zhao Ziyang, and Hu Yaobang, meeting which cemented the solidarity of North Korean relations with the PRC. The Chinese leaders also paid reciprocal visits to Pyongyang to consolidate the diplomatic and security relations between the two counties.

When North Korean leader Kim Il Sung died in July 1994, Deng Xiaoping extended condolences to the Korean Workers' Party Central Committee (KWP CC) and expressed his "deep grief" at the loss of a "close comrade in arms." China also recognized Kim Jong-il, the son of Kim Il Sung, as the new supreme leader in North Korea to assist in his smooth transition to power. When Kim Il Sung's 44-year rule was over, China expected that his successors would pursue a pragmatic open-door foreign policy and improve inter-Korean relations. China also invited Kim Jong-il to visit China in January 15-20, 2001, which was his third visit (he visited once in June 1983 and again in May 2000.) During his 2001 visit Kim toured the Pudong industrial complex in Shanghai, inspecting the US$1.5 billion Buick plant and other flagship Sino-foreign joint ventures, such as NEC's US$ 1.2 billion semiconductor foundry in Zhangjiang High Tech Park. He also had summit meetings with Chinese leader Jiang Zemin in Beijing in January 2001. Chinese leader Jiang also reciprocated his visit in September 2001, accompanied by over 100 officials from the PRC government, the Chinese Communist Party (CCP), and the military and economic sectors. The PRC and DPRK have thus gained full momentum in making exchanges at various levels since the PRC-DPRK summit talks in Pyongyang.[1]

However, the Chinese policy toward North Korea began to change when China recognized the Republic of Korea (South Korea) and established diplomatic relations in 1992.[2] This article will discuss the shifting Chinese policy toward the two Koreas against the background of the normalization of diplomatic relations with the Republic of Korea as well as Chinese views and positions on North Korea's denuclearization. China recognized North Korea as a sole legitimate government on the Korean peninsula during the Cold War era, but gradually shifted to an equidistant policy toward North and South Korea when the Cold War ended and ushered in a new international environment. More specifically the Chinese policy of equal distance to North and South Korea well expressed in its role in and policy toward the

denuclearization of North Korea at the six-party talks that included China, Russia, the United States and Japan as well as North and South Korea.

Nuclear Development in North Korea

The history of nuclear development in the Democratic People's Republic of Korea is more than 50 years old. North Korean nuclear scientists began their study in the Soviet Union and East European countries in the 1950s. The training of North Korean nuclear scientists was in the interest of the peaceful use of atomic energy. Soviet-North Korean agreements signed in this connection specifically stressed the peaceful nature of bilateral cooperation in the development of nuclear energy. North Korean nuclear scientists also received their training in East Germany, West Germany, and Japan, and some underwent practical training at Chinese nuclear facilities as well. North Korea's scientific and experimental infrastructure in the nuclear field was built with Soviet technical assistance. Soviet technicians also took part in the construction of the nuclear facilities at Yongbyon, 92 kilometers north of Pyongyang, which was suspected of having produced sufficient plutonium to make two or three nuclear bombs in the early 2000s. The Geneva Agreed Framework of 1994 after series of negotiations between the United States and North Korea, froze the nuclear program in Yongbyon during the Clinton administration.

In the mid-1960s, North Korea established a large-scale atomic energy research complex in Yongbyon and trained specialists from students who had studied in the Soviet Union. In 1965, North Korea assembled a Soviet IRT-2M research reactor for this center. From 1965 through 1973 fuel elements enriched to 10 percent were supplied to North Korea for this reactor. In the 1970s, North Korean nuclear scientists focused their research on the nuclear fuel cycle, including refining, conversion and fabrication. In the 1970s, North Korean scientists modernized a Soviet-built research reactor by increasing its capacity to 8 megawatts. During the same period, North Korea also began to build a five MW research reactor that was called the "second reactor". In 1977, North Korea concluded an agreement with the IAEA, which allowed the IAEA to inspect a research reactor, built with the Soviet assistance.[3]

The nuclear weapons program in North Korea dates to the 1980s, which focused on the practical uses of nuclear energy and the completion of a nuclear weapons development system. North Korea began to operate facilities for uranium fabrication and conversion. In 1985, U. S. officials announced for the first time that they had intelligence data proving that North Korea had built a secret nuclear reactor 90 kilometers north of

Pyongyang near the small town of Yongbyon. However, that installation had already been known for eight years from official IAEA reports. In 1985, under international pressure, Pyongyang acceded to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). However, the DPRK refused to sign a safeguards agreement with the IAEA, an obligation it has as a party to the NPT.[4]

In July 1988, South Korean President Roh Tae-woo called for new efforts to promote North-South Korea exchanges, family reunions, inter-Korean trade, and contact in international forums. President Roh also followed up this initiative in a UN General Assembly speech in which South Korea offered for the first time to discuss security matters with the North. Initial meetings that grew out of Roh's proposals started in September 1989. In September 1990, the first of eight prime-minister level meetings between North and South Korean officials took place in Seoul, which began a period of fruitful dialogue. The prime ministerial talks brought about two major agreements in late 1991: the Agreement on Reconciliation, Nonaggression, Exchanges, and Cooperation known as the Basic Agreement and the Declaration on the Denuclearization of the Korean Peninsula, known as the Joint Declaration.[5]

The Joint Declaration called for a bilateral nuclear inspection regime to verify the denuclearization of the peninsula. The Declaration, which took effect on February 19, 1992, stated that the two sides "shall not text, manufacture, produce, receive, possess, store, deploy or use nuclear weapons," and that they "shall not possess nuclear reprocessing and uranium enrichment facilities." A procedure for inter-Korean inspection was to be organized and a North-South Joint Nuclear Control Commission (JNCC) mandated with verification of the denuclearization of the peninsula.[6]

On January 30, 1992, North Korea also signed a nuclear safeguards agreement with the IAEA, as it had pledged to do in 1985, when accepting the Nuclear Non-Proliferation Treaty. This safeguard agreement allowed IAEA inspections to begin in June 1992. In March the JNCC was established in accordance with the joint declaration, but subsequent meetings failed to reach agreement on the main issue of establishing a bilateral inspection regime. Ignoring the North-South Joint Declaration of the Denuclearization of the Korean Peninsula, North Korea refused IAEA inspections and operated nuclear reprocessing facilities, which made the world suspicious of its nuclear intentions. On March 12, 1993, North Korea announced its withdrawal from the Nuclear Non-Proliferation Treaty (NPT). North-South dialogue thus halted and tension ran high on the Korean Peninsula as the confrontation between North Korea and the United States deepened.[7]

The U. S. responded by holding political-level talks with North Korea in early June 1993 which led to a joint statement outlining the basic principles for continued US-DPRK dialogue and North Korea's suspending its withdrawal from the NPT. The second round of talks was held in Geneva, July 14-19, 1994. These talks set the guidelines for resolving the nuclear issue, improving U.S.-North Korean relations, and restarting inter-Korean talks, but further negotiations deadlocked.[8]

Following North Korea's unloading of fuel from its five-megawatt nuclear reactor in the spring of 1994 and the U.S. push for UN sanctions as well as former President Jimmy Carter's visit to Pyongyang in June 1994, helped to defuse tensions and resulted in renewed North-South talks. A third round of talks between the US and the DPRK opened in Geneva on July 8, 1994. However, the sudden death of North Korean leader Kim Il Sung on July 8, 1994, halted plans for a first-ever South-North presidential summit and led to another period of inter-Korean animosity. The talks recessed because of Kim's death and then resumed in August, resulting in the Agreed Framework.

Under the Agreed Framework, the North would freeze and eventually dismantle its existing nuclear program, including the 5 MW reactor and 200 MW graphite-moderated reactors under construction, as well as its existing 5 MW reactor and nuclear fuel reprocessing facility. In return, North Korea would receive alternative energy, initially in the form of heavy oil, and eventually two proliferation-resistant light water reactors (LWR). The two 1,000 MW light-water nuclear reactors would be safer and would produce much less plutonium, in order to help boost the supply of electricity in the North, of which there is a critical shortage. The agreement also included a gradual improvement of relations between the U. S. and the DPRK, and committed North Korea to engage in a North-South dialogue.[9]

After signing the Agreed Framework, South Korean President Kim Young Sam loosened restrictions on South Korean firms desiring to pursue business opportunities with the North. Although North Korea continued to refuse official contacts with the South, economic exchanges expanded gradually. In accordance with the terms of the 1994 framework, the US government in January 1995 responded to North Korea's decision to freeze its nuclear program and cooperate with US and IAEA verification efforts by easing economic sanctions against North Korea in four areas through:

- Authorizing transactions related to telecommunications connections, credit card use for personal or travel related transactions, and the opening of journalists' offices;

- Authorizing D.P.R.K. use of the US banking system to clear transactions not originating or terminating in the United States and unblocking frozen assets where there is no DPRK Government interest:

- Authorizing imports of magnesium, a refractory material used in the US steel industry—North Korea and China are the world's primary sources of this raw material; and

- Authorizing transactions related to future establishment of liaison offices, case-by-case participation of US companies in the light water reactor project, supply of alternative energy, and disposition of spent nuclear fuel as provided for by the agreed framework, in a manner consistent with applicable laws.

After some disagreement with regard to South Korean designed Light Water Reactor (LWR) model reactors, the US and DPRK reached an agreement on June 12, 1995, on the issue. North Korea agreed to accept the decisions of the Korean Peninsula Energy Development Organization (KEDO) with regard to the model for the LWR and agreed that KEDO would select a prime contractor to carry out the LWR project. North Korea also agreed to negotiate directly with KEDO on all outstanding issues related to the LWR project. KEDO and the DPRK signed the Light Water Reactor Supply Agreement on December 15, 1995. KEDO teams also made a number of trips to North Korea to survey the proposed reactor site; in the spring of 1996, KEDO and the DPRK began negotiations on implementing protocols to the supply agreement. The leading members of KEDO were South Korea, the United States and Japan, and KEDO reached an agreement on the provision of the light-water nuclear reactors by 2003. In return, North Korea froze its nuclear program. South Korea promised to bear the lion's share of the reactor project, the cost of which was estimated at $4.5 billion US dollars. KEDO and North Korea held a groundbreaking ceremony to begin construction of two light-water reactors on August 19, 1997.[10]

The inauguration of the George W. Bush administration in 2001 brought about the scraping of all the denuclearization agreements with North Korea. In his State of Union message in January 2002, President Bush charged North Korea as being one of three axes of evil, the other two being Iraq and Iran, and became the target of destruction during the

Bush administration. The denuclearization program of North Korea, a project of the Clinton administration, was scrapped and the Bush administration's hostility toward North Korea inevitably brought about the revival of North Korean nuclear weapons development program in the early 2000s. In October 2002, North Korean officials acknowledged the existence of a clandestine program to enrich uranium for nuclear weapons that was in violation of the Agreed Framework and other agreements. Moreover, on October 9, 2006, North Korea announced it had conducted a nuclear test and thus North Korea joined the nuclear club. North Korea also conducted a long-range missile test in 2005.

The Six-Party Talks for the Denuclearization of North Korea:

The six-party talks, which included the United States, China, Russia, Japan, North Korea and South Korea, convened in Beijing, China, on August 28, 2003, after a series of discussions and negotiations between the major powers. The idea of convening the six-party talks to denuclearize North Korea was President Bush's and offered a way to scrap the Clinton administration's negotiations with North Korea for a nuclear free zone on the Korean peninsula in the 1990s. The primary objective of these talks was to find a ways in which North Korea would halt its nuclear weapons and missile development. From the beginning the multi-national meetings were divided into the Northern Triangle and the Southern Triangle. China, Russia and North Korea tended to agree on the North Korean position on nuclear issues while the United States, Japan and South Korea agreed on the objectives of denuclearizing North Korea.

The Bush administration halted the bilateral negotiations with North Korea that the Clinton administration had begun in the 1990s and took a multilateral approach to solving the North Korean nuclear issue. After a series of six-party meetings a joint statement was agreed to and issued on September 19, 2005. During the negotiations, the United States took the position that North Korea should give up its nuclear program first and then proceed to the next step. The five other nations took the position that they should reach agreement first and then they would proceed to negotiate the abandonment of the nuclear weapons program. The United States eventually accepted the majority opinion and changed its position allowing for the final declaration of the Sixth-Party Agreement on September 19, 2005.[11]

Throughout the five rounds of the six-party talks in Beijing, all six parties agreed to resolve North Korea's nuclear development issues peacefully. "The United States and North Korea agreed to respect each other's independence and sovereignty, uphold the peaceful coexistence

of the two nations, and o take measures that would lead to the recognition of each other and the establishment of diplomatic relations." The six parties also agreed to cooperate in energy, trade, and investment and in bilateral or multilateral trade relations. They also agreed to cooperate in the promotion of long-term stability and peace in Northeast Asia, and to convene the fifth session of the six-party talks in the early part of November 2005. The six nations also reconfirmed the joint statement of September 19, 2005, and reached an agreement that the purpose of the six-party talks was to achieve peacefully the denuclearization of the Korean peninsula by verifiable means.

The first nuclear crisis in North Korea was resolved peacefully in 1994, when the Clinton administration carried out direct negotiations with the DPRK in Geneva, and North Korea agreed to freeze its nuclear program following the U.S.-DPRK Agreed Framework of October 21, 1994, as has already been discussed in detail. In this Framework, the United States and the ROK agreed to supply North Korea with energy through the organization of the Korean Energy Development Organization (KEDO). The ROK government undertook the major burden of constructing the hydraulic power plants in North Korea to supply electricity in the 1990s. However, after his inauguration in 2001, George W. Bush adopted a hard line policy toward North Korea. The second nuclear crisis in North Korea thus began with mounting tension between the Bush administration and North Korea.

Even though the United States agreed to abide by the September 19, 2005 agreement, tension between the two hostile nations continued to mount as the result of the freezing of North Korean bank accounts holding $25 million (at Banco Delta Asia in Macau). Japan and South Korea supported the U.S. position at the fourth round of six-party talks in July and September. When the six-party talks resulted in negotiated the September 19 Joint Statement, the two allies, South Korea and Japan, were reluctant to support the US freezing of North Korean accounts. It is uncertain if the $25 million North Korean bank account was, in fact, counterfeit money or used for money laundering. In any case, Russia and China called for the United States to guarantee the security of North Korea and to normalize diplomatic relations by providing economic and energy aid to North Korea.

When the first North Korean nuclear crisis erupted in 1994, the Clinton administration negotiated successfully with North Korea. The Clinton administration invited Cho Myung Rok, Defense Minister of North Korea, to the White House as part of US-DPRK negotiations. Secretary of State Madeline Albright visited Pyongyang to discuss the normalization of diplomatic relations, and North Korea invited President

Clinton to visit Pyongyang and convene a summit meeting for the normalization of US-DPRK diplomatic relations. However, such a meeting never took place because of the US presidential election.

The Bush administration adopted a hard line policy toward North Korea that led the North to abandon the nuclear agreement with the United States and began to reprocess the sealed fuel rods after announcing that it was withdrawing from the Nuclear Non-Proliferation Treaty (NPT). At the same time North Korea initiated the uranium-based nuclear program to speed up the development of nuclear weapons. North Korea also began to develop a missile program. The second nuclear crisis thus began in October 2002, when North Korea acknowledged that it had started a reprocessing of uranium program.

In contrast to the first Korean nuclear crisis of 1994, China reacted more positively in 2002, participating more actively as a mediator to prevent the escalation of the conflict between North Korea and the United States. In the first nuclear crisis, the United States and North Korea had negotiated directly; however, in the second crisis, the United States avoided talks with North Korea. Therefore, China changed its posture from passive to active mediator. China was thus pursuing preventive diplomacy.

In short, the Chinese were very active in convening the six-party talks in Beijing. Chinese leader Hu Jintao dispatched his foreign minister to Pyongyang to deliver a personal letter to the North Korean leader. Hu's letter stressed the following three points: 1) China's recommendation was that North Korea must resolve the nuclear crisis through negotiation and mediation; 2) China would increase economic aid to North Korea; and, 3) China would attempt to persuade the United States to conclude a non-aggression treaty with North Korea and promise to North Korea that the US would not attack North Korea if North Korea expressed its willingness to denuclearize the Korean peninsula.

Kim Jong Il emphasized, in response to the Chinese proposal, that North Korea would accept the multilateral conference proposed by China, but it would be necessary to have bilateral talks between North Korea and the United States first to resolve the nuclear issues. The first six-party talks opened in Beijing on August 28, 2003, through the good offices of the People's Republic of China. They resulted in agreement over the following four points: 1) the Korean Peninsula should be denuclearized; 2) denuclearization should be executed through peaceful means; 3) denuclearization required "justifiable, rational, and comprehensive" plans; and, 4) the participants should avoid any statement or activities that would increase tensions. However, the United States took a "non-negotiable all-or-nothing stance" which would lead to

the breakdown of any negotiation. The United States demanded "Complete, Irreversible Dismantlement of North Korean nuclear programs (CVID)" and the six-party talks deadlocked.[12]

The second round of the six-party talks started in Beijing on February 25, 2004, but bilateral talks between the United States and North Korea had already begun to deteriorate when North Korea attempted to revise the statement from the first round. Chinese Deputy Foreign Minister Wang Yi stated that the difficulties in the talks were due largely to the "extreme mistrust between the United States and North Korea."[13] However, China continued to make its effort to reopen the six-party talks in order to avoid war and pursue a peaceful resolution of the nuclear issues in Korea. Chinese Foreign Minister Li Zhaosing visited Pyongyang in March 2004 prior to the third round, while the foreign minister of the ROK visited Beijing and stressed the need for a professional staff meeting to lay the groundwork. Meanwhile, Kim Jong Il took a night train from Pyongyang to Beijing on April 2004 for his third visit to China. He discussed the future of the six-party talks with such Chinese leaders as Chairman Hu Jintao, Prime Minister Wen Zhabao, and former Chairman Jiang Zemin. Jiang tried to persuade Kim that North Korea should change from a hard line posture to a more moderate one at the six party talks since the United States was not likely to start a war against North Korea. The Chinese leaders understood that the United States would not be able to or want to fight another war in Korea while it was engaged in the Iraq War.

The United States position was somewhat more moderate in the third round of talks, and North Korea demanded that the United States lift its blockade and provide two million kilowatts of electric power as well as heavy crude oil in return for North Korea's halting of its nuclear program. The United States informed the Chinese delegation that even if North Korea agreed to denuclearization, the US would not establish diplomatic relations with North Korea. However, South Korea stated that the United States would establish diplomatic relations with North Korea if it abandoned the nuclear program. The third round of six-party talks thus ended without any resolution, although Chinese Deputy Foreign Minister Wang Yi did issue a statement on the North Korean nuclear issue. The fourth six-party talks took place in Beijing in September 2004 but did not make any real progress. Therefore, in October, China invited Kim Young Nam, Chairman of the Supreme People's Assembly and a nominal head of state in the DPRK, to discuss the future course of the six-party talks. He agreed with the Chinese leaders that they were the only means to reach an agreement on its nuclear issue.

US Secretary of State Colin Powell also met the Chinese leaders and emphasized the necessity of re-opening the six party talks. North Korea hoped that the election of a Democratic President in the November election would result in a change in policy, but with Bush's was re-election and the only hope was to have China attempt to persuade Washington to take a more moderate approach and make concessions in its negotiations with North Korea.

On February 10, 2005, North Korea issued a statement that "[b]ecause of the vicious policy of the Bush administration which attempted to isolate the DPRK,"[14] North Korea was forced to produce nuclear weapons for its self-defense and would adopt a more combative foreign policy. Moreover, North Korea would not participate in the six-party talks. China again took on an active role to prevent the conflict from escalating between the United States and North Korea. China also increased its contacts with both North and South Korea and the Chinese sent an envoy to Pyongyang in 2005 in an attempt to moderate the North Korean leader's position. There was also more frequent contact between Beijing and Seoul. Seoul expected that the Chinese would be able to persuade North Korea to rejoin the six-party talks. However, the United States continued its hard line policy toward North Korea and criticized China for not putting enough pressure on North Korea to have it return to the six-party talks.

The most significant outcome of the six-party talks was the Joint Statement of September 19, 2005, which was issued after the fourth round of meetings from July 26 to August 7 and from September 13 to 19, 2005. According to the Joint statement the DPRK committed itself to "abandon all of its nuclear programs and return to NPT at an early date.[15] One more round of talks was held in November 2005; however, the implementation of the Statement of Principles stalled as the six parties had different interpretation of the obligations under the agreement. North Korea pulled out of the talks demanding that the United States lift financial sanctions as a condition for returning to the process. North Korea then carried out a missile test on July 5, 2006, and a nuclear test on October 9, 2006 despite Chinese advice against both. The Chinese reaction to the nuclear test was very harsh in contrast to the earlier missile test. After the missile test, China had weighed regional reactions before issuing an official statement of its own, deploring the missile test, but Beijing immediately condemned Pyongyang's nuclear test.

Moreover, China was willing to impose limited sanctions in order to send a signal to North Korea that it considered its hostile behavior unacceptable. However, China's leadership remained hesitant about supporting any sanctions against North Korea and was unwilling to

support military action. In addition, China continued supplying food and energy to the DPRK. From the Chinese perspective, stopping those supplies would mainly be harmful to the Korean people and far less so to the Pyongyang leadership and military complex. Thus, China believed that sanctions alone would not stop the nuclear weapons program. Beijing continued to be concerned about the stability of the North Korean regime and to avoid its collapse.

The February 13, 2007 agreement stipulated the first steps for fulfilling the long-term principles outlined in the Joint Statement of September 19, 2005, and included the verifiable denuclearization of the Korean Peninsula in a peaceful manner and the goal of normalization of relations between the United States and the DPRK. At the follow up six-party talk, convened in Beijing on March 22, 2007, however, the Chinese called a recess and Russian and North Korean delegates flew home as the result of the controversy over the $25 million North Korean bank account. The money remained frozen at the Banco Delta Asia, despite assurances by the US negotiator, Assistant Secretary of State Christopher R. Hill, who assured the North Koreans it would eventually be released to North Korea. The North Korean delegate refused to take part in the six-party talks until the transfer of the fund. Chinese Deputy Foreign Minister Wu Dawei had organized the negotiations based on US assurances that the banking issue had been resolved and had argued that diplomacy, rather than sanctions, would be more effective in dealing with North Korea. Thus, President Bush committed the U.S. to extend diplomatic relations with the DPRK, lift its trade embargo, and provide economic assistance if North Korea abided by the six-party agreement and abandoned the nuclear development program. North Korea provided more than 18,800 pages of documents to the US negotiator Christopher Hill as proof of extracting plutonium from the Yongbyon nuclear plant.

The New China News Agency (NCNA) reported on February 13, 2007, that the six-party talks in Beijing had ended with a joint document on the first step toward the denuclearization of the Korean Peninsula. In this document, the Democratic People's Republic of Korea would shut down and seal the Yongbyon nuclear facility, including the reprocessing facility and invite back IAEA personnel to conduct all necessary monitoring and verifications. The US President also issued a statement saying, "I am pleased with the agreements reached today [February 13, 2007] at the six-party talks in Beijing. These talks represent the best opportunity to use diplomacy to address North Korea's nuclear programs. They reflect the common commitment of the participants to a Korean Peninsula that is free of nuclear weapons. In September 2005, our nations agreed on a Joint Statement that charted the way forward toward

achieving a nuclear weapons free peninsula. Today's announcement represents the first step toward implementing that agreement."[16]

According to the agreement, North Korea would denuclearize the Korean Peninsula and accept monitoring and verification by the International Atomic Energy Agency within a given timeframe. In return, North Korea would receive an initial 50,000 tons of heavy fuel oil or equivalent of economic and humanitarian aid. The DPRK would subsequently undertake measures to irreversibly "disable" its nuclear programs and receive 950,000 tons of fuel oil, or the equivalent in the form of economic or humanitarian aid, from China, the United States, the Republic of Korea and Russia. The joint agreement outlining the initial actions the DPRK would take to end its nuclear program and the economic rewards North Korea would receive in return was reached after five days of hard negotiations. All six parties also agreed to take coordinated steps to implement the Joint Statement of September 19, 2005, a step-by-step process in accordance with the principle of "action for action." However, the Japanese government declined to meet its obligation to assist North Korea economically and US negotiator, Christopher Hill sought an alternate source of support in Australia.

As we have seen in the discussion of the six-party talks, the Northern triangle is not as solid as it used to be during the Cold War. However, China and Russia seemed to agree more with North Korea on the issues of nuclear development, and they are both interested in the denuclearization of the Korean Peninsula. It was during Boris Yeltsin's term in the 1990s that the Soviet system was transformed into the Commonwealth of Independent States (CIS) and the Russian Federation was willing to accept a weakening in its relations with North Korea in order to establish diplomatic relations with South Korea. Mikhail Gorbachev ended the Cold War while Boris Yeltsin brought about the dissolution of the USSR system of government and weakened the triangular relations between Russia, China and North Korea. In contrast, Russian President Vladimir Putin restored the relations of the Northern Triangle.

The inauguration of the Bush administration in January 2001 and the charging of North Korea a one axis of evil brought about the second North Korean nuclear crisis in the US foreign policy. The first nuclear crisis of 1993-1994, caused by North Korean withdrawal from the NPT (Non-Proliferation Treaty), was resolved peacefully with the adoption of the 1994 Agreed Framework during the Clinton administration. To resolve the second North Korean nuclear crisis of 2003 China played an intermediary, if not the dominant, role in the US-North Korea conflict by calling for and chairing the six-party talks in Beijing in August 2003.

The talks were the primary diplomatic forum for addressing North Korea's nuclear proliferation policies, and China played more than an intermediary role as the talks progressed. Indeed, China has been a dominant force behind creating and sustaining the talks.

It took four rounds of the talks in Beijing before Pyongyang and Washington agreed to adopt the Joint Statement on September 19, 2005, which reaffirmed the goal of the six-party talks as the verifiable denuclearization of the Korean Peninsula in a peaceful manner. North Korea promised to give up its nuclear weapons and programs. In exchange, other parties expressed their willingness to provide oil, energy aid and security guarantees. The September 19 Agreement stated that, North Korea could have a nuclear energy program in the matter of course if it met the strict safeguards.[17]

The fifth round of talks convened in Beijing on November 9, 2005, but did not make any progress. However, North Korea later protested the US freezing its $25 million funds, deposited at the Banco Delta Asia in Macau. The US government charged the North Koreans with money laundering and counterfeiting. The US released the fund after a series of negotiations in 2007. However, sanctions aimed at ending North Korean money laundering, illicit financing activities, and weapons proliferation continue in effect, as well as sanctions that prohibited US companies from owning, leasing, operating or insuring North Korean-flagged shipping vessels, and from registering vessels in North Korea. Therefore, it is difficult to figure out what sort of restrictions have actually been lifted.

The fifth round of the six-party talks convened in Beijing in December 2006, and at its third session on February 13, 2007, adopted the Action Plan. By the terms of the February 13 Joint Statement, North Korea agreed that, within 60 days, it would "shut down and seal for the purpose of eventual abandonment of the Yongbyon nuclear facility," where it had manufactured and reprocessed plutonium for use in nuclear weapons. In exchange, the five parties including the United States, agreed to provide North Korea with up to one million tons of fuel oil and other economic and humanitarian assistance, and Japan and the United States pledged to move toward normalizing relations with North Korea. The action plan also announced the establishment of five working groups tasked with discussing and formulating "specific plans for the implementation of the September 19 Joint Statement.[18]

When the second nuclear crisis on the Korean Peninsula started in October 2002, South Korea and the United States had expected Chinese efforts to moderate and influence North Korea. China thus took the initiative to bring North Korea to the six-party talks and hosted them for

six years in Beijing. China played an important role in persuading North Korea to accept the Agreed Framework, the September 19 Joint Statement, and the February 13, 2007 Action Plan (or Joint Declaration). China was vital to the convening and sustaining the talks. It also hosted in April 2003 the original trilateral meetings between the United States, North Korea and China, playing an important role in initiating a denuclearization process that led to the six-party talks. China has continued to lean on North Korea to continue attending the sessions and thus China has served as the key diplomatic facilitator of the six-party talks. When the talks have bogged down, Chinese diplomatic leadership has been crucial to overcoming impediments. China persuaded Pyongyang to attend five formal rounds of negotiations during which many preparatory or working group sessions were convened, despite its usual practice of avoiding such forums. The success of the six-party talks is a credit to Chinese diplomacy.

China's Two Koreas Policy:

North Korea continued to rely on economic and military support from China even after China's normalization of diplomatic relations with South Korea in 1992. China sent its armed forces under the flag of Chinese Volunteers Forces to counter United Nations forces when North Korea was at the verge of collapse during the Korean War in 1950. Ever since its intervention in the Korean War, China has consistently supported North Korea with its UN veto power against any attempt at international sanctions by the Western powers. When North Korea withdrew from the Nonproliferation Treaty in March 1993, the United Nations Security Council attempted to pass a resolution to sanction North Korea. However, China used its veto power to prevent the action. Therefore, North Korea continues to rely on China for security and economic support. Thus, the alliance between China and North Korea, sealed in blood during the Korean War continues.

Kim Jong Il's visits to China began in May 2000 and took place again in January 2001, April 2004, and January 2006. When Kim visited China in early 2000, he formulated and implemented the North Korean reform policy and visited China a month prior to his summit meeting with South Korean President Kim Dae Jung in June 2000. Apparently, he concluded that the Chinese had achieved great success through reform and its open door policy following his inspection of a Chinese information technology complex. North Korea thus reached an agreement with South Korean conglomerate Hyundai to open the Kaesung Industrial Complex, which is a joint export-oriented venture. Following his inspection tour in China which included the stock

exchanges and financial and commercial complexes in the Pudong area of Shanghai, Kim Jong Il lauded the dramatic changes in China as "shaking up in heaven and earth." After his visit to China, Kim began to pursue a more pragmatic line and announcing a mode of "new thinking." The Economic Improvement Policy of July 1, 2002, and the establishment of a Special Administrative Area in Shinuichu in September 2002, and the Kaesung Industrial Complex Law are good examples of North Korea's attempt to follow the Chinese model of reform.[19]

When Kim Jong Il visited China in April 2004 he inspected a high tech complex in Shandong Province while Prime Minister Park Bong Ju surveyed the model village "Hanchunhe." Following this visit, North Korea restructured its External Economic Cooperation Committee (EECC), placing it under the direct jurisdiction of the prime minister. North Korea also announced it would return to the third round of six-party talks to discuss the nuclear issues in June 2004. North Korea thus began following economic reform based on the Chinese model. However, it acquired nuclear and missile technology from Russia.

In previous scholarly work, I have focused on the Chinese security interest during the Cold War era, during the period of détente and normalization of foreign relations, however, the focus was shifted to economic interests. After the normalization of diplomatic relations between China and South Korea in 1992, the flows of investment, exports, students, tourists, and business people from South Korea to China increased greatly, and the trend has continued during the past decade and a half. Several top Chinese leaders visited South Korea while South Korean presidents including Kim Young-sam, Kim Dae-jung, Roh Moo-hyun as well as the newly-inaugurated President Lee Myung-Back visited Beijing as recently as August 2008. In his first overseas trip after hosting the 2008 Beijing Olympic Games, Chinese President Hu Jintao met with his South Korean counterpart Lee Myung-back in Seoul on August 25, 2008, to map out the details of their plan to upgrade bilateral relations.

It was Hu's second visit to South Korea as president, following his first visit in November 2005. The summit meeting with President Lee is their third meeting since Lee took office in February 2008. They met briefly in Beijing on August 9, 2008, as Lee traveled to China for the opening ceremony of the 2008 Olympic Games. Hu and Lee had their first summit in Beijing in May 2008 and announced their agreement to upgrade South Korean and Chinese relations to a "strategic cooperative partnership." What constitutes a "strategic cooperative partnership" is important aspect diplomatic relations but it took only sixteen years to

reach such a close diplomatic relationship. The question of how China's "strategic cooperative partnership" with South Korea would affect China's relations with North Korea needs to be analyzed and understood in the context of two Koreas' relations. Thus, China's equal-distant policy toward the two Koreas is the new mode of Chinese foreign policy under the leadership of Hu Jintao.

Conclusion

Historically, China had a strong commitment to the Democratic People's Republic of Korea for its security. Sino-North Korean relations has been characterized as "lips to teeth" or "sealed in the fresh blood" following the Korean War as we have discussed in this article. We have discussed extensively the role of China along with the two Koreas in the six-party talks to denuclearize North Korea. During those talks China expressed its national interest as resting on a nuclear free Korean peninsula. It is also China's interest that North Korea and South Korea achieve reunification by peaceful means. However, China continues to hold long range views on the Korean peninsula as the reunification with Taiwan is not eminent.

Sino-South Korean relations have been transformed into a "strategic cooperative partnership" under the Lee Myung-Back government in Seoul. In the event of war between North and South Korea, or if South Korea attempted to reunify the two Koreas, how would China respond to such a critical national security issues? Would China send in its troops to rescue North Korea from the collapse or stand by to see the reunification of two Koreas under one regime? The leaders of China and two Koreas must convene summit meetings to discuss the future relations but also to map out China's role in the unification of two Koreas.

Notes:

[1] For the background of North Korea's relations with China, see Ilpyong J. Kim, *Historical Dictionary of North Korea.* Lanham, Maryland and Oxford: The Scarecrow Press, 2003. pp. 17-20

[2] For Sino-South Korean Normalization of Diplomatic Relations, see Ilpyong J. Kim, "The Normalization of Chinese-South Korean Diplomatic Relations," *Korea and World Affairs: A Quarterly Review*, Vol. XVI, No. 3 (Fall 1992), pp. 483-492.

[3] For the Soviet role in North Korean nuclear development, see Vladimir D. Andrianov, "Economic Aspects of the North Korean Nuclear Program," in James Clay Moltz and Alexander Y. Mansourov, eds., *The North Korean*

Nuclear Program: Security, Strategy, and New Perspectives from Russia (London: Routledge: 2000*), p.47.*

[4] Ibid.

[5] For the Agreed Framework and Joint Declaration as well as the Reference Materials, see the DPRK Briefing Book of the NAUTILUS INSTITUTE at Http://www.nautilus.org/DPRKBriefingBook/agreedFramework/index.html

[6] Ibid.

[7] For the North Korean Nuclear Situation: History of the "Agreed Framework" and how it was broken, see "About.com.US Government Info." http://usgovinfo.about.com/library/weekly/aankorea.htm

[8] For KEDO Background & Developments, see Center for Nonproliferation Studies, Inventory of International Nonproliferation Organizations and Regimes, 2002. DPRK Briefing Book, Nautilus Institute. http://www.nautilus.org/DPRK BriefingBook/agreed Framework/index.html

[9] Ibid.

[10] Ibid.

[11] For the history of the Six-Party Talks, see "Six-Party Talks on North Korean Issues: Overview and Evaluation. The Ministry of Foreign Affairs of Japan, http://www.mofa.go.jp/region/aia-paci/n_korea/6party0308.html

[12] Ibid.

[13] Ibid. See the history of the Six-Party Talks and also see Christopher J. Le Mon, "Six-Party Talks Produce Action Plan on North Korean Nuclear Disarmament," American Society of International Law (*ASIL Insight*), March 6, 2007. 1-2. Joint Statement of the Fourth Round of the Six Party Talks," September 19, 2005. be found in the online network of the U.S. Department of State at http://www.state.gov/r/pa/prs/ps/2005/53490.htm

[14] For the Russian role in the Six-Party Talks, see Hiroshi Kimura, "Putin's Policy toward the Korean Peninsula: Why Has Russia Been Losing Its Influence?" A paper presented to a conference sponsored by the Silk Road Studies Program, Central Asia-Caucasus Institute, Johns Hopkins University and Uppsala University, December 16-17, 2005.

[15] For Kim Jong Il's visit to China, see Ilpyong J. Kim, *Historical Dictionary of* North Korea. 17-19.

[16] *New York Times*, February 14, 2007.

[17] For the "Joint Statement of the Fourth Round of the Six-Party Talks," see September 19, 2005, http://www.state.gov/r/pa/prs/ps/2005/53490.htm. Also see *China Daily*, September 19, 2005.

[18] Ibid.

[19] Ilpyong J. Kim, "Reform in North Korea," in *Reform and Transformation in Communist Systems.* Kim, Ilpyong J. and Jane Shapiro Zacek, Coeditors. New York: Paragon House Publishers, 1991. 293-309. Also see Brad Glosserrman, "Fallout from Pyongyang," *Far Eastern Economic Review*, 168, no. 9 (2005): 43

Running in Place: North Korea's Nuclear Program and the Six-Party Talks During the Bush Administration

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ABSTRACT

North Korea has developed a nuclear program that threatens the stability and security not only of Northeast Asia, but other regions (such as the Middle East) where it has proliferated nuclear technology. The events that led to the Six-Party talks are both compelling and important. The process was mired in debate and slow progress from its inception in 2003 until a breakthrough apparently occurred in the fall of 2005. But disturbing information about North Korea's illicit activities and the corresponding actions taken by the United States Treasury Department led to another impasse until February of 2007. A "sea change" in Washington's policy in 2007 led to what many hoped would be progress in the talks, but North Korea's failure to answer important questions about its proliferation to rogue states, its Highly Enriched Uranium (HEU) program, and the locations or numbers of its Plutonium weapons led to a collapse of the talks by the end of the Bush administration in 2009. An examination of the process and Washington's policy moves throughout the Bush administration offers important lessons for international security and the use of the inter-agency process as it applies to North Korea.

Key Words: Six-Party Talks, HEU, North Korean Proliferation, Yongbyon, North Korean Nuclear Program, North Korean Illicit Activities, Banco Delta Asia

[1] The views expressed in this paper are those of the author and do not necessarily reflect the official policy or position of the U.S. Marine Corps Command and Staff College, the Marine Corps University, or the United States Government.

North Korea has developed a nuclear program that is both dangerous and potentially destabilizing to the region. Despite the best efforts of three different American Presidents, North Korea continues to have a program that has now developed weapons proliferated to other rogue states, and tested (at least partially) successfully in 2006. Because North Korea is a country that brutalizes its own people, maintains a hostile attitude toward its neighbors, and continues to have a "basket case economy," the nuclear program is of great concern, not only to other nations in the region and those who have interests in the region, but to nations that exist in other volatile regions such as the Middle East and South Asia, where proliferation has created difficult and complicated security dilemmas.

While I believe the specific details of North Korea's nuclear program are extremely important, that will not be the focus of this article (though I will provide background on both the Plutonium and HEU programs). Indeed, while the nuclear program was in existence during the entire Clinton administration, that also will not be the focus of this article. There is a great deal of literature on both subjects. Instead, the focus will be on the six-party talks and how they evolved during the Bush administration. My reasons are simple. The events that led to the six-party process and the various steps that the process went through from 2003 through the end of the Bush administration in 2009 will have an effect on the security and stability of the Korean Peninsula well into the Obama presidency in the United States and the Lee Myung-bak administration in South Korea. The six-party talks, their development during the Bush administration, and the many events that occurred as the diplomatic progression occurred have been the focus of a great deal of debate and criticism since their inception for various reasons – from both those on the left and those on the right. Thus, it will be my goal to sort through the evidence and present a clear picture of why the process was initiated, what its goals were, how successful it was during the Bush years, and what the chances of success for this process are during the Obama administration.

In order for one to understand the nuances associated with the six-party talks, one must first understand the basic background on North Korea's Plutonium and Highly Enriched Uranium (HEU) programs and how they have developed. It will also be important to gain perspective on the actions (both North Korean and American) that led to the six-party talks. This article will also cover the events that occurred during the talks between 2003- 2005, and lead into the "breakthrough" that seemed to occur in 2005 – as well as the activities that essentially put this framework into limbo during 2005-2006. North Korea "upped the ante"

in 2006 with two key provocative initiatives. After describing the fallout from these events and a look into the "real breakthrough" agreement of 2007, I will close with events that have occurred in and around the talks since 2007 and assess the future of the six-party talks, North Korea's nuclear program, and possible implications for the future.

Background on North Korea's Plutonium and HEU Programs

Kim Il-sung is said to have planned for a nuclear program as early as the 1960s. North Korean scientists trained in the Soviet Union during this time, and reportedly were schooled by the Soviets in how to process plutonium. A small, experimental plutonium reactor was completed in a facility at Yongbyon sometime between 1980 and 1987.[1] Once the reactor and associated facilities were completed, they were almost impossible to hide. A plutonium facility of the type at Yongbyon is typically rather large and easily photographed by outside collection methods.

During the early 1990s, rumors began to circulate that North Korea was developing nuclear weapons at the facility. In the post-Cold War environment, this may have created enough pressure for North Korea to sign an International Atomic Energy Agency (IAEA) safeguards agreement on January 30, 1992.[2] Inspectors from the IAEA conducted six separate inspections in North Korea, the last of which occurred in February, 1993. Based on these inspections, it appeared that the North Koreans had reprocessed plutonium on three separate occasions in 1989, 1990, and 1991. What had originally appeared to be a spirit of cooperation ended when inspectors were denied access to two suspect nuclear waste sites that Pyongyang declared to be military sites and off-limits.[3] This standoff with the IAEA resulted in the first North Korean nuclear crisis. It looked as if North Korea and the United States may have actually been on the brink of war until talks between Jimmy Carter and Kim Il-sung ended the impasse. President Carter's visit with the North Koreans led to what would eventually be called the "Agreed Framework," which froze North Korea's facilities at Yongbyon in exchange for annual heavy fuel oil shipments (HFO) and the building of light water reactors (for peaceful uses) by the United States.

As a result of the terms of the Agreed Framework, the North Koreans agreed to freeze – but not dismantle – their nuclear program. Facilities were sealed, but not torn down, and nuclear components were not dismantled or taken away.[4] In addition, the North Koreans delayed returning to the worldwide Non-Proliferation Treaty (NPT) as various elements of the framework were implemented under the Clinton administration. North Korea did not have to dismantle any facilities as a

result of the agreement, and this would lead to numerous problems in later years during the Bush administration. In addition, North Korea's use of returning to or walking away from the NPT would also be an issue that would arise in later years.

The nuclear confrontation between the United States and North Korea that continued throughout the Bush administration and into the Obama administration is generally agreed to have begun during bi-lateral U.S.-North Korea talks on October 3, 2002. It was at that time that Assistant Secretary of State for East Asian Affairs James Kelly confronted two North Korean negotiators – Kim Kye-Kwan and Kang Sok-ju – with the fact that the United States had strong evidence of North Korea's clandestine highly enriched uranium (HEU) weaponization program (a violation of the Agreed Framework). Kelly called for the North Koreans to dismantle the program. Foreign minister Kang Sok-ju reportedly admitted to the program and made several demands that Washington would be unlikely to meet – not the least of which was a non-aggression treaty. Several days after the meeting, Bush officials publicly released the details of the North Koreans' stunning admission of a clandestine nuclear weaponization program – and the North Koreans promptly denied it.[5]

North Korea took quick and hostile action in response to the public disclosure of the clandestine HEU nuclear weaponization program by the United States. Pyongyang expelled the IAEA inspectors who had been present at Yongbyon on December 27, 2002, and on January 10, 2003, North Korea announced that it was withdrawing from the NPT (again).[6] These moves reflected the weakness of the Agreed Framework. The plutonium facilities at Yongbyon had only been frozen – not dismantled. Thus, they could be reactivated at any time, for any reason. This is exactly what the North Koreans chose to do. Secondly, by walking away from the NPT (again) the North Koreans showed that its value to them was not even worth the paper it was written on.

According to Siegfried S. Hecker of Stanford University's Center for International Security and Cooperation, by 2005 the North Koreans had made great use of the time available since IAEA inspectors were expelled in December of 2002. According to Hecker, the North Koreans unloaded the reactor at Yongbyon in April 2005 to extract the plutonium. They then reloaded the reactor and resumed operations in June. Hecker has suggested (then and on other occasions) that the North Koreans had extracted enough plutonium and developed enough fissile material to build six to eight nuclear weapons. "Given demonstrated technical capabilities, we must assume they have produced at least a few, simple, primitive nuclear devices."[7] I will talk more about the plutonium

program at length later. Suffice to say, based on the reports from those who have visited North Korea (including Hecker), and the nuclear test conducted in 2006, there is no doubt that North Korea has developed and manufactured plutonium nuclear weapons. The questions that some have risen are about the HEU program. How did North Korea acquire this program and how far along is it? In fact, some have even asserted that the program does not exist and was simply a political tool being used by the Bush administration as an excuse to walk away from the Agreed Framework.

The debate about North Korea's clandestine HEU nuclear weaponization program began almost as soon as the crisis erupted in 2002. In fact, there is controversy over what the North Koreans actually said to James Kelly in October of 2002. One of the most outspoken critics has been noted journalist Selig Harrison. In Congressional testimony given on February 13, 2009, Harrison stated in part, "The assumption of any kind of weapons grade uranium program has been exaggerated, was used as an excuse to abrogate the Agreed Framework in 2002, and has had disastrous consequences. . ."[8] Throughout the Bush administration many scholars concurred with Harrison's assertions. During 2003 Leon Segal of the Northeast Asia Cooperative Security Program told the press, "There is no agreed estimate of anything. As with Iraq, there is significant disagreement in the intelligence community about pieces of this."[9] Comparisons to Iraq have also been made in statements by Harrison and have muddied the waters – particularly since the evidence chain is far different. But this did not stop many scholars and pundits throughout the Bush years from bringing it up as a reason that the vast array of evidence regarding North Korea's HEU program must be in doubt.

While Harrison's claims are interesting, they appear to be based entirely on what the North Koreans have told him. In order to assess North Korea's HEU program, one must look at the evidence – and throw out all biases on both sides of the political spectrum. Thus, it is particularly important to note statements by others who also have in-depth knowledge of the evidence. Robert L. Galluci, a former Clinton administration official who had access to highly classified data on North Korea's nuclear program (and who is anything but a George Bush supporter) made the statement in 2004 that there is "no doubt" that North Korea has the HEU technology. He further stated, "I think the North would like to keep its enrichment program as insurance against U.S. actions. This is something we cannot allow them to do." Galluci also stated, "we should be aware that A.Q. Khan, the Pakistan father of the enrichment program, and sometimes called the father of the bomb in

Pakistan, has admitted to transferring centrifuge technology, selling it to North Korea. I do not know why the North Koreans insist refusing to admit this."[10] Charles L. Pritchard, President of the Korea Economic Institute, addressed the fact the future talks should include North Korea's HEU program during the Obama administration in Congressional testimony when he stated in part, "In revamping the Six Party agenda, a path to resolving our concerns over HEU and Syria-related proliferation activities must be found."[11]

Because there has been a debate that has now lasted for several years – often driven by what end of the political spectrum one analyzes geo-politics from – about the very existence of North Korea's HEU weaponization program, it is important to examine the evidence on this issue. It is my belief that there has been a totality of evidence presented by several governments, by investigative reporting in the press, and from "smoking guns" coming out of Pakistan, Libya, and Iran, to show that North Korea has been on the road to building an HEU program since at least the late 1990s.

Compelling statements by former Pakistani Prime Minister Benazir Bhutto and prominent Pakistani scientist A.Q. Khan have admitted that they had spread important HEU weaponization technology, blueprints, plans, and even scientists to North Korea throughout the 1990s on behalf of the Pakistani government.[12] But high level Pakistani officials were not the only ones to provide evidence of an active and large-scale proliferation of HEU technology from Pakistan to North Korea. High ranking North Korean defector Hwang Jang-yop spoke to the South Korean press about the issue in 2004. He said that during the peak of the restrictions placed on North Korea's plutonium reactor in 1996, he voiced his concerns to a high ranking official, "before the fall of 1996, he said we've solved the problem. We don't need Plutonium this time. Due to an agreement with Pakistan, we will use uranium."[13]

The evidence trail that leads from North Korea to Pakistan is quite compelling. Whether it is the evidence that Pakistan used American made C-130s to transport the centrifuges, plans, and scientists to North Korea for the burgeoning HEU program (flying through Chinese airspace), or the fact that in exchange, North Korea provided missiles (the No Dong) capable of providing a platform for Pakistan to launch nuclear weapons at India, there is evidence of a "nuclear bazaar" run by Pakistan's A.Q. Khan for North Korea (among others).[14] In fact, there are even rumors that Pakistani scientists may have taken up residence in North Korea in order to help with Pyongyang's HEU program. South Korean scholar Cheon Sung-hun of the Korea Institute for National Unification told the South Korean press in 2004 that "Nine Pakistani

nuclear scientists have been missing since they left their country six years ago, and we cannot rule out the possibility that some of them are in North Korea."[15]

The public disclosure that North Korea was also probably collaborating with Libya during its HEU development period (Libya was also cooperating with Pakistan at the time – as was Iran) is also troubling and is another piece of the puzzle. As then Vice-President Richard Cheney remarked in a speech given at Fudan University in China, ". . . the Libyans acquired their technical expertise, weapons design and so forth from Mr. A.Q. Khan, Pakistan . . . Mr. Khan also provided similar capabilities to the North Koreans. So we're confident that the North Koreans do, in fact, have a program to enrich uranium to produce nuclear weapons."[16] Equally as disturbing are the many reports that began to come out of Iran in 2003 and have continued as of the writing of this article. According to dissident groups, press reports, and scholars who focus on the region, North Korea is collaborating with Iran on building a 500 kilogram HEU warhead for a missile (reportedly the No Dong – called the Shahab-3 in Iran).[17] The original design for the warhead probably came from the Pakistani's - who also gave the same design to the Libyans.[18]

The difficulty of detecting an HEU facility is that it can be far smaller than a plutonium processing facility, can even be built underground, and is far less vulnerable to technical intelligence collection means then the very large facility the North Koreans have at Yongbyon.[19] In dealing with an opaque government and society like North Korea, it has been very difficult since the very beginning of the crisis in 2002 to get the North Koreans even to admit that they have the program. But after several years of North Korean denials and support of these denials from many pundits and scholars both in the United States and South Korea (almost exclusively on the left), the evidence regarding its existence once again began to seep out to the public in late 2008. In 2009 in an interview with the press, outgoing U.S. Secretary of State Condoleezza Rice reportedly said, "I think the intelligence community now believes that there is an undisclosed either imported or manufactured weapons-grade HEU in North Korean.[20] During her confirmation hearings in January 2009, incoming Secretary of State Hillary Clinton also voiced concern about North Korea's HEU program, "Our goal is to end the North Korean nuclear programs – both the Plutonium processing program and the highly enriched uranium program, which there is reason to believe exists, although never quite verified."[21] Meanwhile, according to a senior South Korean official (who declined to be identified), U.S. and South Korean intelligence had discovered a

North Korean secret HEU facility by February 2009. The facility is reported to be underground and is located in Sowi-ri, North Korea – in the same province where the Yongbyon facilities are located. The facility reportedly can produce small amounts of highly enriched uranium.[22]

While it appears the big issues that remained unresolved as the Bush administration left office were North Korea's HEU program, their weapons, and proliferation to other rogue states, there were a great many twists and turns in the six party talks as they moved back and forth from 2003 until the Obama administration assumed power in 2009. These developments were important, and there are many lessons that can be learned from them. Thus, for the remainder of this article I will assess what happened, why it happened, and what the results (if any) meant for the United States, North Korea, and the region.

Actions That Led to the Six-party Talks

While the Bush administration has been the subject of a great deal of criticism for ending the Agreed Framework process, there were many difficult circumstances leading to the confrontation between James Kelly and the two senior North Korean negotiators (Kim Kye-kwan and Kang Sok-ju) in December of 2002. These important factors should be part of any analysis that addresses the history of the six-party talks. As the Clinton administration came to a close and the presidential election results remained in doubt at the end of 2000, sensitive talks that were ongoing with the North Koreans were suspended. In fact, a scheduled trip by envoy Wendy Sherman was cancelled.[23] In addition, it was well known (including to the North Koreans) that the incoming Bush administration planned to take a very different approach to Pyongyang than its predecessor. Because of the delayed transition period for the Bush administration (as a result of contested presidential election results), it was several months before key personnel could be put into position. These delays during a highly sensitive and very important period of talks with North Koreans likely made an already edgy government in Pyongyang even more tentative about dealing with the new American government. Differences in approach to North Korea with Washington's allies in Seoul also caused problems. Finally, talks originally scheduled for July of 2002 were delayed because of a North Korean-initiated sea battle with the South during the summer.[24]

George Bush had campaigned during his bid for the presidency for a harder line with the North Koreans and had been critical of Clinton administration policies that had only frozen (not dismantled) the facilities at Yongbyon, failed to keep Pyongyang from test-launching a long-range

ballistic missile in 1998, and engaged in talks with the DPRK that most conservatives in the United States thought were unwise. The North Koreans were reportedly very apprehensive about dealing with the Bush administration. In a speech he gave at the Young Korea Academy Forum for Unification in Seoul during June 2004, Lim Dong-won, the head of the National Intelligence Service in South Korea during the Kim Dae-jung administration stated that Kim Chong-il had told him that he had cancelled his planned visit to South Korea in 2001 – in fact saying that he "had no choice" – because of the outcome of the U.S. elections, revealing to Lim that his advisors had told him Bush would take polices that would "threaten the North Korean regime."[25] Thus, walking into talks with the North Koreans the Bush administration was confronted with inherited policies it disagreed with, a North Korean government that was hostile to negotiating with a new American president it did not trust (and actually feared if one is to believe Lim's statements), and an ally in South Korea that was even softer in its policy toward Pyongyang than the Clinton administration.

The Six Party Talks Begin: 2003 – 2005

As a result of the confrontation between James Kelly and the North Korean negotiators, there was an impasse of several months in talks between the DPRK and Washington. The United States at the time no longer wanted to deal with the North Koreans on a bi-lateral basis – largely as a result of the lack of transparency that the North Koreans had shown. For their part, the North Koreans declared the Agreed Framework was "null and void."[26] Diplomats within the Bush administration and from the region came up with a new framework for negotiations on North Korea's nuclear program and called it the "six-party talks." The six parties in the talks included the United States, South Korea, North Korea, the Russian Federation, Japan, and China.[27] The six-party talks involved a multilateral approach to resolving the issues surrounding North Korea's nuclear program. The first of these talks was held during April 2003. There were five sessions between April 2003, and the fall of 2005.

During the first two years of the six-party talks most analysts agree that there were few, if any, consequential results. The talks were typically hosted in Beijing by the Chinese government. China was perceived by many – including some in the U.S. government – as being a positive influence on the talks. China is well known as being North Korea's lone ally. In fact, China worked closely during these early stages of the six-party talks with South Korea, whose government hoped a steady engagement policy would persuade Pyongyang to move forward

in ridding the Korean peninsula of nuclear weapons.[28] While China and South Korea did improve their relationship during this early period of the talks, there was no significant change in North Korean behavior. American hopes that the Chinese would be able to exert influence or even pressure on the North Koreans regarding their nuclear program proved to be disappointingly false.

The first ray of light in the six-party talks occurred on September 19, 2005. At that time, Pyongyang pledged in principle that it would eventually abandon its nuclear weapons programs in exchange for economic assistance and security pledges from Washington. The United States also pledged to build a light water reactor for the North Koreans (nuclear power for peaceful purposes) eventually. The details of the agreement were very hazy – and light on specifics. South Korean Minister of Unification Chung Dong-young announced to the press that the breakthrough was largely a result of his efforts. He claimed to have had numerous meetings with both American and North Korean officials that led to this first ray of light in what had been a standstill in negotiations between Pyongyang and the other parties (particularly the United States).[29]

Immediately following the breakthrough in talks, a South Korean official was asked by a reporter if "enriched uranium will be included in the nuclear programs scrapped by North Korea." The official replied, "It says all nuclear weapons and existing nuclear programs in the agreement."[30] The key concern of conservatives in the United States and of those who watch North Korea on a daily basis was verification. Throughout the history of its nuclear program North Korea has failed to live up to inspection agreements. As Henry Sokolski, executive director of the Nonproliferation Policy Education Center said at the time, "There's no good way to locate Kim's nukes using special technology. Inspectors will have to ask the regime to learn more, and Kim is sure to demand that the U.S. make concessions for every answer. In this game, Pyongyang's deck will always be larger than ours."[31] Nevertheless, despite its lack of clarity, details, or formalization, North Korea's agreement in principle to dismantle their nuclear program sparked hopes in 2005 that a successful end was in sight for talks that had dragged on with almost no results for more than two years.

North Korea's Illicit Activities Cause an Impasse: 2005-2006

While the agreement reached between the North Koreans and the other five parties in the talks was potentially a landmark event, it left many unanswered questions regarding specifics, verification, and obligations by all parties. Because the agreement was so lacking in

details, had it actually been the nexus of what was needed to get North Korea to dismantle its nuclear weapons program, it would have only been the beginning and diplomats would have had to hammer out a great many issues. But this is not what happened. The reasons are simple. On September 15, 2005, the United States Treasury Department, took action under Section 311 of the USA PATRIOT Act, and designated Banco Delta Asia in Macao as a "primary money laundering concern." Treasury's Under Secretary for Terrorism and Financial Intelligence Stuart Levy stated, "Banco Delta Asia has been a willing pawn for the North Korean government to engage in corrupt financial activities through Macau, a region that needs significant improvement in its money laundering controls." Levy further commented, ""By invoking our USA PATRIOT Act authorities, we are working to protect U.S. financial institutions while warning the global community of the illicit financial threat posed by Banco Delta Asia." The comments, stated in a Treasury Department press release, highlighted illegal and illicit activities the bank had conducted for the North Koreans and prohibited U.S. banks from doing business there.[32]

The reaction from the North Koreans was to demand that the U.S. immediately release the frozen funds and drop sanctions on eight of the companies accused of being fronts for illicit activities and proliferation of WMD. When the six parties met again in November 2005, the talks went nowhere, and the issue of North Korea's nuclear program apparently took a back seat to the concerns relating to Pyongyang's illicit activities – and the front companies that supported them. These activities included (and still include) illegal drugs (primarily methamphetamines and heroin), counterfeit money (primarily American hundred dollar bills), counterfeit cigarettes, and arms sales that included WMD and missiles.[33] The action taken by the U.S. Treasury Department and the corresponding fallout in the international financial world produced a stalemate in the talks that the North Koreans had likely not anticipated. But in order to realize why the measures were taken by the Americans, it is also important to realize just how widespread the North Korean illicit and illegal activities are in Asia – centered at the time around Banco Delta Asia in Macao.

According to State Department official William Bach (in Congressional testimony given in 2003), the North Korean government has been actively involved for more than three decades in illicit activities. According to Bach, "For some 30 years, officials of the Democratic People's Republic of Korea have been apprehended for trafficking in narcotics and other criminal activity, including passing counterfeit U.S. notes." He further specifically addressed illegal drugs when he said,

"More recently, there have been very clear indications, especially from a series of methamphetamine seizures in Japan, that North Koreans traffic in, and probably manufacture, methamphetamine drugs."[34] Perhaps just as importantly, North Korea's illegal and illicit programs became an important way for the regime to fund the elaborate lifestyle of its elite and to help fund other programs – including the nuclear program.

The illicit programs (including everything from drugs and counterfeiting to the proliferation of arms) are run out of an office within the Korean Workers Party (KWP) known as Bureau Number 39 – which sits very near the Koryo Hotel in Pyongyang (where many foreign visitors stay). Front companies such as Daesung Chongguk (with offices in Austria) and Zokwang Trading Company (which operated out of Macao) are controlled by Bureau Number 39 – which answers directly to Kim Chong-il.[35] According to interviews conducted by reporters from the *Wall Street Journal*, the slush fund generated by Bureau Number 39 amounted to hard currency approaching $5 billion.[36] For many of the years of North Korea's illicit programs, Zokwang Trading Company was located in an office building very close to Banco Delta Asia – which held $25 million of the North Korean government's money, much of which was found to be from illegal activities.[37] Macao was the center of much of North Korea's money laundering for its activities until international law enforcement officials began focusing on the small former Portuguese colony in 2005. Pyongyang apparently began this movement in earnest when subsidies from the Soviet Union ended in 1990. Of course, North Korea – then and now – also has diversified its slush funds in such places as Luxembourg and Singapore.[38]

North Korean drug operations are known to involve the manufacture and sale of both heroin and methamphetamines. A shipment of heroin seized in Australia from the North Korean merchant ship "Pong-su" was reported by Australian Federal Police to have a street value of $221 million.[39] While heroin sales are likely important to the coffers of Bureau Number 39, methamphetamines are reportedly much more lucrative. Japanese police estimated in 2003 that North Korean methamphetamines accounted for 43% of that illegal market there.[40] North Korean government operatives also reportedly have connections (to distribute their illegal drugs) with the yakuza in Japan, and with organized crime syndicates in both China and Taiwan. Even the military in North Korea has a history of supporting drug distribution and playing a role in drug drops, and their personnel are said to have often been used in this capacity.[41]

Counterfeit cigarettes are an operation that has not been discussed nearly as much as the illicit drug operations or the counterfeit currency

operations. But their manufacture and illegal sale apparently picked up during the 1990s when North Korea began to feel a strong economic pinch. The North Koreans reportedly manufacture their counterfeit cigarettes in two factories obviously off-limits to foreigners, and make such brand names as "Marlboro" and "Seven" that are sold illegally throughout Asia and even in the United States.[42] In Congressional testimony, U.S. State Department official Peter Prahar stated that between 2002 and 2005 counterfeit Marlboro cigarettes were identified in 1,300 incidents in the United States. Prahar also reported that federal indictments were filed alleging that over a period of several years criminal gangs had arranged for a 40-foot container of DPRK-originated counterfeit cigarettes to enter the United States at the rate of one per month. He also said that the counterfeit cigarettes from North Korea were sold on a large scale all over Asia, including Japan, the Philippines, and Singapore. As with all North Korean illegal operations, Pyongyang's government dealt with organized crime syndicates in China – among other places.[43] Also, much like North Korea's other illicit operations the funds were likely often channeled through front companies and banks in Macao (among other places).

Counterfeit currency was a particular concern of the Bush administration because the currency being counterfeited was (and probably still is) U.S. hundred dollar bills. The counterfeit currency North Korea produced was cited by the U.S. Secret Service as among the most sophisticated in the world.[44] The bank in Macao was reportedly being used to launder the fake bills, but like their drug operations, the North Koreans were also heavily involved with international organized crime. Pyongyang's partners included Asian organized crime syndicates, possibly the Russian Mafiya, and even members of the Irish Republican Army.[45] As a result of the efforts of American law enforcement other countries – including important Asian economic powers like China and Japan – began also to crack down on North Korean accounts in their banks because of fears of North Korean government-sponsored organized crime.[46]

The effects of the restrictions on Banco Delta Asia had devastating economic ramifications on North Korea's ability to generate badly needed hard currency. Thus, the reaction from the North Koreans was obviously a negative one – in fact a reaction that led to a stalemate in the six-party talks. But one result from the new U.S. policies on North Korea's illicit activities surprised even American policy makers. Because of the large-scale benefit for North Korea's elite, Kim Chong-il's slush fund, and even military funding, Pyongyang actually began to hurt financially. The United States had been looking for a way to

leverage the North Koreans since the very beginning of the six-party talks in 2003. It now appeared that Washington had a chance to do so - because North Korea's illegal and illicit financial networks were being exposed. As Rachel L. Loeffler, former Deputy Director of Global Affairs at the U.S. Treasury Department, stated in 2009, "In short, the mere announcement of a possible regulatory measure that would apply only to U.S. institutions caused banks around the world to refrain from dealing with BDA and North Korea. By March 2007, when Washington actually made it illegal for U.S. banks to maintain relationships with BDA, many in the global financial community had already cut ties with BDA on their own."[47]

North Korea Takes Action: The Missile and Nuclear Tests of 2006

As the six-party talks proceeded into 2006, North Korea decided to make the building of a light water reactor by the United States an issue. President Bush and President Roh had previously made public statements regarding the light water reactor, saying that North Korea must first take verifiable steps to dismantle its nuclear program. But the North Koreans were certainly not without leverage of their own. During the summer of 2006, they made preparations for a long-range ballistic missile test. On July 4 and 5, 2006, North Korea test-launched seven ballistic missiles, including one Taepo Dong 2 (which failed to successfully reach its second stage), and several SCUD and No Dong systems. The missile launches were met with outrage by the international community.[48]

As the North Koreans were preparing to launch the eye-opening test, respected analysts in both the United States and South Korea assessed that it was being used to get the United States to ease its stranglehold on the North Korean economy that was a result of the crack down on illicit activities and the banks that supported it. Kim Tae-woo of the Korean Institute for Defense Analysis discussed this when he said, "The U.S. is now strangling North Korea economically . . . their immediate objective is to make the U.S. step back."[49] Former Pentagon official Chuck Downs commented, "Pyongyang has created an opportunity to break out of the negotiating deadlock that has stymied the regime for years, dissolve the international consensus on how to deal with the regime's illicit smuggling and counterfeiting activities, and change politics in South Korea and the U.S."[50]

On October 9, 2006, the North Koreans conducted their first underground nuclear test. As the six-party talks remained mired in disagreement over Pyongyang's illicit programs and details of what the agreement to dismantle should include, North Korea effectively ended any debate about whether or not they actually had nuclear weapons.

Most analysts agreed that the test appeared to have been an at least partially successful detonation of a plutonium nuclear device. Siegfried Hecker visited North Korea following the test and stated, "The DPRK aimed for 4 kilotons and got 1 kiloton. That is not bad for the first test. We call it successful but not perfect."[51] Hui Zhang, a research associate at the Belfer Center for Science and International Affairs of the John F. Kennedy School of Government at Harvard University, estimated the test this way: "If North Korea planned the yield of 4 kt (as reported), the test could be not a failure. It could show that Pyongyang already has confidence to explode a larger nuclear device and is pursuing a much more compact warhead for its missiles."[52] Following the test, the North reiterated its demand that the U.S. stop financial restrictions that were at the time strangling North Korea's access to banks in the international arena as a condition for returning to the six-party talks. Kim Chong-il reportedly told Chinese officials, "If the U.S. makes a concession to some degree, we will also make a concession to some degree, whether it be bilateral talks or six-party talks."[53]

The chess game continued through the end of 2006. The United States had been successful in putting the North Korean economy under considerable pressure by initiating financial restrictions on banks that dealt with Pyongyang's widespread and very lucrative illicit activities as well as by working with international law enforcement to inform institutions and governments about these activities. For their part, the North Koreans had not blinked. Instead they responded defiantly by first testing several ballistic missiles during the summer of 2006, and then taking the even more drastic step of testing a nuclear device in October. The question was who would blink first? The United States was under considerable pressure from its allies in the six-party talks (particularly the government of South Korea) to ease law enforcement and financial actions that had put North Korea "under the gun." The North Koreans were adamant about funds being released in Banco Delta Asia – largely because the repercussions that this caused in the international banking community made it extremely difficult for them to run their money (much of it from illegal or illicit activities) through banks throughout Asia and elsewhere. Had the United States kept up the pressure on North Korea's ability to operate its financial networks, there is no telling what steps Pyongyang would have taken next. But this was not to happen.

The Six-party Talks Move Forward: The Agreement of 2007

In the chess game that began after North Korea's reported admission of an HEU program to the United States (later denied) during late 2002, Pyongyang had shown it would not hesitate to play hard ball.

Conducting missile and nuclear tests that gained worldwide attention certainly proved this. Of course, the United States also played a tough game that was able to put real pressure on North Korea's fragile – and largely illegal – economy. But it was the United States that agreed to make the concessions necessary to restart the six-party talks and begin what policy makers at the time hoped would be the beginning of North Korea's dismantlement of its nuclear program.

In an agreement reached by all six of the parties and released on February 13, 2007, the following issues were agreed on in the "initial phase":

- The DPRK would shut down and seal for the purpose of eventual abandonment the Yongbyon nuclear facility, including the reprocessing facility and invite back IAEA personnel to conduct all necessary monitoring and verifications as agreed between IAEA and the DPRK.

- The DPRK would discuss with other parties a list of all its nuclear programs as described in the Joint Statement, including plutonium extracted from used fuel rods, that would be abandoned pursuant to the Joint Statement.

- The DPRK and the US would start bilateral talks aimed at resolving pending bilateral issues and moving toward full diplomatic relations. The US would begin the process of removing the designation of the DPRK as a state-sponsor of terrorism and advance the process of terminating the application of the Trading with the Enemy Act with respect to the DPRK.

- The DPRK and Japan would start bilateral talks aimed at taking steps to normalize their relations in accordance with the Pyongyang Declaration, on the basis of the settlement of unfortunate past and the outstanding issues of concern.

- Recalling Section 1 and 3 of the Joint Statement of 19 September 2005, the Parties agreed to cooperate in economic, energy and humanitarian assistance to the DPRK. In this regard, the parties agreed to the provision of emergency energy assistance to the DPRK in the initial phase. The initial shipment of emergency energy assistance equivalent to 50,000 tons of heavy fuel oil (HFO) would commence within the next 60 days.[54]

Also under the agreed upon plan, the six parties formally agreed to establish the following working groups to carry out the actions of the "initial phase":

1. Denuclearization of the Korean Peninsula
2. Normalization of DPRK-US relations
3. Normalization of DPRK-Japan relations
4. Economy and Energy Cooperation
5. Northeast Asia Peace and Security Mechanism[55]

Statements to the press by senior U.S. officials were disappointing to many analysts when it came to the actual details of the agreement. When asked about the ambiguity of the February 13 statement, Condoleezza Rice remarked in part, "This is the first step, but there's a step in the follow-on phase which is the complete declaration." When she was asked about the fact that the North Koreans continued to deny the existence of their HEU program (which had caused the crisis in the first place), Rice remarked, "we are in the first quarter, not the fourth, and we are going to pursue the issue of the highly enriched uranium program. We've made that clear." During the same briefing with the press, Rice was also asked a very difficult two-part question, 1) how far along North Korea's HEU program was; and 2) ". . . whether the issue of the Macao bank would be resolved shortly with the North Korean funds released within 30 days." The frozen funds in the Macao bank and related crackdowns all over Asia had set the North Koreans back on their heels, and been what had caused the talks to stall since 2005. Rice responded in part, "We've been having good discussion with all of the parties involved in that and we'll look to what kind of remediation needs to take place to resolve our concerns. But that's a legal channel . . . . In terms of the HEU program . . . I can't go much farther beyond saying that we have concerns about the highly enriched uranium program."[56]

The new deal with the North Koreans had been brokered by the chief negotiator to the six-party talks, Christopher Hill, who had strongly advised Rice (who correspondingly was able to convince President Bush) to take the terms of the deal despite the advice of many others in the Bush administration who were reportedly against it because it eased the pressure on North Korea's illicit programs and put no real pressure on Pyongyang to disclose details of its HEU program. Hill defended the terms of the agreement in a speech he gave on February 22, 2007, when he stated in part, "It is unlikely that the North Koreans will roll out of bed in the morning and say we are going to make a strategic decision to get out of all of this. More likely, they are going to make decisions to move on a step-by-step basis, and as they move one step, they will look back and say, this is a better place than we were yesterday, and that will

encourage them to take still another step. . . . By no means have we achieved the final step."[57]

In the minds of some – both on the left and the right ends of the political spectrum – the key issue (and one which was not addressed) was still the HEU program. Yet, even as the ink was drying on the agreement, the North Koreans were continuing to deny the very existence of the program. Despite what many considered a poorly conceived deal that gave all of the advantages to Pyongyang, the United States pushed forward. The North Koreans were adamant about demanding that they would not advance with any of the initiatives of the February 13 agreement unless the United States "released" their funds in Banco Delta Asia in Macao.[58] Unlike the ambiguity in Condoleezza Rice's statement about easing up on North Korea's illicit and illegal activities, the United States made a clear move to back off any pressure that it had been applying to Pyongyang's lucrative support funds for its military and the elite. In June 2007, the funds were released from Banco Delta Asia in Macao.[59] The unfreezing of funds effectively ended a policy that had been successful in pressuring North Korea. As Treasury Undersecretary Stuart Levey told the American Bar Association in 2008, "many private financial institutions worldwide responded by terminating their business relationships not only with [BDA], but with North Korean clients altogether."[60] It appears the Treasury Department was forced to back off as U.S. policy took a decided turn in a different direction in 2007.

Stonewalling and Denials: The Events of 2007-2009

The talks had truly reached a new phase because of the agreement reached by all six parties in early 2007. But the agreement was notably vague in many ways and left many questions about verification, the existence of North Korea's HEU program, and the speed with which North Korea would dismantle its facility at Yongbyon. During 2007 all talks seemed to focus only on the facility at Yongbyon – and not on the actual fissile material which was – and probably still is – located elsewhere. But as the talks continued in 2007 another issue arose: proliferation. In September of 2007 the Israeli air force bombed and destroyed a facility in Syria that has now been discovered to have been a plutonium nuclear weaponization facility built for Damascus using North Korean technology and assistance.[61] This occurrence in the Middle East brought up fresh concerns about North Korea's nuclear program. At the time Pyongyang had disclosed nothing about its fissile material, its weapons, or its HEU program. But now the issue of proliferation to rogue states was visible for all to see, and raised further concerns about

the impact of Pyongyang's nuclear weaponization program on other volatile regions outside of Northeast Asia.

During April of 2008 North Korea and the United States seemed to be on the verge of reaching a deal where documents would be turned over that would provide full disclosure of Pyongyang's nuclear program. Some worried that this was a U.S. concession (depending on what the documents revealed), but Washington pushed on. Calls for revelations about North Korean proliferation to Syria and its covert HEU program seemed to go unheeded. State Department spokesman Sean McCormack claimed on April 18, 2008, that the deal would allow inspectors access to all of North Korea's facilities.[62] North Korea's reluctance to reveal these activities reportedly held up release of the documents for several months. The deal that was unfolding in April of 2008 seemed to offer some movement on reducing North Korea's plutonium activities and Washington seemed focused on this aspect of the talks. In return for turning over documents and blowing up its cooling tower at the Yongbyon nuclear facility, the United States was to remove North Korea from its list of state sponsors of terrorism.[63]

Finally, in May 2008, North Korea handed over more than 18,000 pages of documents relating to its nuclear program. But the documents reportedly did not contain information about Pyongyang's proliferation to Syria or its HEU program. Reportedly, the North Koreans "acknowledged" U.S. concerns over their HEU program and proliferation, but that was the extent of their disclosure of these two key details and (disturbingly) as far as it went. Robert Galluci (former lead negotiator on nuclear issues during the Clinton administration) spoke about the Syrian proliferation question when he stated, "That is a huge undropped shoe and it must be dealt with."[64] Following North Korea's release of the documents – which cannot legitimately be called anything close to a complete disclosure – the U.S. Senate earmarked $15 million in economic aid for North Korea and another $53 million to provide for 1 million tons of fuel in exchange for progress in the six-party talks. The bill passed 70-26.[65]

Despite the disturbing North Korean actions revealed in late 2007 and others that came to light in 2008 – and the failure to reveal details of its covert HEU program – talks continued into the summer of 2008. In a frank statement that was very revealing about North Korean intentions, Charles L. "Jack" Prichard, the head of the Korea Economic Institute, revealed to the press that the North Koreans he met in April 22-26 2008, said that they would destroy their nuclear facilities but not necessarily their weapons and material already manufactured. State Department officials responded that North Korea "often takes a tougher stance in

conversations with private-sector analysts to enhance its negotiating position." Pritchard also stated that North Korean officials he spoke with continued to deny their proliferation activities.[66] Despite the concerns and analysis of many in both the United States and allied nations, in a major show that was hailed in Washington as a profound step in the right direction, North Korea blew up the cooling tower (a televised event) at the Yongbyon plutonium facility in late June 2008.[67]

The year 2008 proved to be a very frustrating one for many in both the Bush administration and those involved in the six-party talks who were hoping to oversee the dismantlement of North Korea's nuclear program. During this period a blueprint was laid out for verifying Pyongyang's nuclear disarmament. Unfortunately, this blueprint did not call for North Korea to either give details of its HEU program or its proliferation to Syria. Nevertheless, on June 26, 2008, Bush "announced the lifting of the Trading with the Enemy Act [TWEA] with respect to the Democratic People's Republic of Korea [DPRK, or North Korea], and notified Congress of his intent to rescind North Korea's designation as a State Sponsor of Terrorism [SST]."[68] The announcement was based on the long awaited "declaration" of its nuclear programs handed over by North Korea. The declaration not only did not have details of its HEU program or proliferation, but it also failed to provide any information on North Korea's nuclear-weapons arsenal (including the number of bombs or where they were stored).[69] To exacerbate concerns further fresh traces of HEU were reportedly discovered among the more than 18,000 pages of documents that the North Koreans turned over to the United States. Condoleezza Rice stated to the American press, "As we've gotten deeper into the process, we've been troubled by additional information about North Korea's uranium-enrichment capability. . . "[70]

By July 17, 2008, North Korea had pulled half of its 8,000 fuel rods from the nuclear reactor at Yongbyon as it slowly met its obligations to dismantle its nuclear program, according to sources in the multilateral negotiations.[71] Talks on July 12 had produced an agreement for verification of North Korea's nuclear facilities, but the talks failed to produce details of when and how it would take place. By July 22, the United States had proposed a specific mechanism to the North Koreans for verifying their nuclear dismantlement, but the proposal received a lukewarm reception in Pyongyang.[72] As the North Koreans continued to stonewall on verification, President Bush made a statement on July 31 that he would not remove them from the U.S. terrorism list unless they agreed to a protocol for verification of their uranium-based nuclear program and proliferation.[73] By September, the issue of verification and complete disclosure was still at an impasse. North Korea began to "up

the ante" by apparently breaking the seals at its Yongbyon nuclear facilities and hinting that the facilities there would be restored.[74] Pyongyang's actions were in response to Washington's request that verification involve "full access to any site, facility or location," and would allow inspectors to take both still photos and videos, and to stay at suspected sites as long as necessary. The U.S. proposal also included inspectors being able to make repeated visits to sites and to take samples (which could of course be analyzed in the United States).[75]

By October 2008, administration officials had admitted that the fragile agreement reached could collapse if the two sides did not reach a consensus quickly. But the situation seemed to be saved when, despite North Korea's lack of cooperation, the United States did, in fact, remove North Korea from its list of state sponsors of terrorism. In response, the North Koreans reportedly again resumed their agonizingly slow disabling of the facilities at Yongbyon.[76] As former Bush official Victor Cha stated in an opinion piece, "A McCain or Obama administration will have to contend with the problems of dismantlement, uranium, and Syria, and other nuclear issues which undeniably will come up during the verification of Yongbyon."[77] Soon after being dropped from the list of states supporting terrorism, North Korea demanded a subsistence allowance for 10,000 people who it claimed earn their living from operations at Yongbyon. Pyongyang also demanded that the other members of the six-party talks set a specific timetable -in writing - for providing energy assistance in return for their nuclear disablement.[78]

The verification agreement that the United States and North Korea reached during the fall of 2008 was troubling to many who felt that Washington had given in to North Korean demands that did not adequately address much of Pyongyang's nuclear program. Bruce Klingner of the Heritage Foundation spoke of this when he stated, ". . . some verification measures are tenuously based on side letters or oral agreements with North Korea." Klingner elaborated: "U.S. officials privately acknowledged that the verification protocol will not provide access to inspect the nuclear test site, plutonium waste site, or facilities involved in the weaponization of plutonium. Experts will have access only to Yongbyon and some academic institutions."[79] In what many analysts considered to be a troubling development, North Korea's HEU program and proliferation were reportedly to be referred to in an "appendix to the main document," and were to be dealt with separately. Thus, in essence, when it came to verification of either of these essential items, Washington agreed to "kick the can down the road." Since the appendix was reportedly less binding then the main document adopted, what was contained in it would likely be addressed in "future talks," and

thus the issues that Washington had originally pushed so hard for became almost ancillary in the verification process.[80]

Finally, in November 2008, North Korea announced that it would not allow inspectors to take samples to verify its nuclear capabilities. Pyongyang announced that inspectors could not remove samples from its facility at Yongbyon, which meant they could not be taken out of the country.[81] The announcement rendered what had already been a weak agreement even weaker. Now inspectors were not only limited in the facilities they could verify, but in the way that they would be able to conduct their inspections. Being unable to remove samples from North Korea made it much more difficult to verify where the samples came from, how they affected the nuclear weaponization program, and other important technical issues that would have been vital for ensuring Pyongyang was transparent in the dismantlement and disclosure process.

What made the verification agreement even weaker was the fact that the United States accepted many "verbal agreements" with North Korea. For example, according to press reports, the only written documentation regarding sampling that was agreed to was a "memorandum of conversation" written by Christopher Hill to Condoleezza Rice. An unnamed senior State Department official conceded that no other evidence of North Korea's "commitment" to sampling existed.[82] North Korea's agreement to a verification protocol was probably one of the key reasons that the communist state was taken off the State Department's list of states supporting terrorism – yet Pyongyang later claimed it had never promised to allow sampling and accepted a document with no specific enforcement measures. In an interview with the South Korean press, the Bush administration's top State Department official on nuclear verification said that sampling should be guaranteed as a way to assess North Korea's nuclear capability. Paula DeSutter, Assistant Secretary of State for Verification, Compliance, and Implementation, stated in part that "Sampling is a very normal part of many arms control agreements. . ." She further stated, ". . . analysis happens, not on site but back at laboratories specifically designed to do the work."[83]

In late November 2008, the U.S. State Department announced that it expected North Korea to commit – in writing – to allowing its inspectors to take sampling from nuclear sites in the reclusive state. The announcement was made in reference to talks that were to occur in December.[84] After four days of talks in December, North Korea refused to agree to a system of verification that would satisfy the United States. Of particular importance, the North Koreans refused to allow soil and air samples to be taken from the nuclear facilities to locations outside of their country where proper scientific analysis could occur. The impasse

effectively ended any chance the Bush administration may have had to halt the confrontation before the end of its term.[85] Chief Envoy Christopher Hill told the press that "Ultimately, the DPRK [North Korea] was not ready, really, to reach a verification protocol with all of the standards that are required."[86] At a White House press briefing, Press Secretary Dana Perino stated, "There was an open door, and all they had to do was walk through it because five of the members of the Six-party talks had all agreed to a verification protocol."[87] Thus, after delisting North Korea from the list of nations supporting terrorism based on what were essentially verbal agreements, the United States was now faced with a nation that once again was in reality refusing to dismantle its nuclear weapons program in a transparent, verifiable way.

The events that effectively ended in December 2008, showed that despite an engagement policy the Bush administration had followed since February of 2007 (a complete turn-around from policies that begun in 2001), the North Koreans showed no real intention of giving up all aspects of their nuclear weaponization program. More information followed in later weeks that was even more troubling. Of course, in a move that President Bush said was the North Koreans "trying to test the process," Pyongyang hinted that they would (again) slow the process of disablement at their nuclear facility at Yongbyon. The DPRK's nuclear envoy, Kim Kye-kwan, was quoted in the Japanese press as saying they would "probably adjust the pace of disablement at nuclear facilities if aid is suspended." The threat was likely made in response to an announcement by Washington that energy aid to the impoverished state had been suspended because of the failure of the talks. Many experts now believed the North Koreans were holding out on discussions about a verification protocol until the Obama administration assumed office.[88]

As Bush officials prepared to leave office, things also began to fall apart among the other nations involved in the six-party talks. Both Russia and China openly expressed disagreement with Washington over stopping fuel aid to North Korea because of a failure to reach a verification protocol in December 2008. Thus, both nations stated that they planned to continue that aid to Pyongyang, which further exacerbated the lack of leverage the U.S. had over North Korea.[89] In January, White House officials urged North Korea to return to the talks.[90] But the Americans also voiced legitimate concerns that they continued to be concerned about North Korea's HEU program.[91] Later in the month, senior U.S. officials disclosed to the Japanese press that particles of HEU had been detected on aluminum pipe the North Koreans had previously submitted to the Americans as a sample. Condoleezza Rice confirmed these suspicions when she reportedly stated, "I think the

intelligence community now believes that there is an undisclosed either imported or manufactured weapons-grade HEU in North Korea," further commenting, "But that's why the verification protocol becomes even more important to establishing what the nature and status of the HEU program is and what they've done with it and what they might do in the future."[92] As the Bush administration left office, issues still remained concerning North Korean proliferation, its HEU program, and verification of all of its programs, including the locations and numbers of its plutonium weapons. Indeed, even dismantlement of the Yongbyon facility remained in limbo.

Conclusions

The Bush administration left office with North Korea still in possession of its nuclear weapons. Pyongyang also had not made proper accounting of its HEU program, its proliferation activities with Syria (or any other state); nor had the North Koreans even fully dismantled the reactor at Yongbyon. Ultimately, the failure for the Bush administration to accomplish any of its goals in dealing with the North Koreans can be blamed on Washington at least as much at Pyongyang. From the very beginning, the Bush administration seemed split in the interagency process about what policy to follow. And the potentially strong leverage Washington had because of being able to squeeze North Korea's illicit financial networks was abandoned when the talks took a new direction in February 2007. As Nicholas Eberstadt of the American Enterprise Institute has stated, "Adrift without a strategic compass, Bush's North Korea team ended up clinging like shipwreck victims to the desperate prospects of their negotiating sessions with North Korean officials, sacrificing substance so that the process might continue."[93] Dr. Eberstadt's writing highlights a very important fact. The Bush administration had trouble settling on a focused policy in its first years, but by 2005 had finally found a way (perhaps to their surprise) to put pressure on North Korea. Despite this, however, disagreement in the interagency process once again led to a definitive policy shift and a sea change (in 2007) that brought about a complete dependence on the six-party process, which effectively took the pressure off of North Korea.

It is my belief that the focus on North Korea's illicit activities cannot be stressed enough. If one is to look to the very beginning of the North Korean nuclear confrontation, which has been ongoing in some form or another through two full presidential administrations, incentives have never worked in getting the Koreans to be transparent about their nuclear weaponization activities. Only pressure has worked, and that was only for a short time (as the Bush administration shifted policies in 2007).

The pressure applied beginning in 2005 was effective though it is likely the missile tests and nuclear test of 2006 were enough to intimidate Washington into relenting to Pyongyang's demands. As Marcus Noland has noted, ". . . 2005 U.S. Treasury action against a small Macau bank where North Korean accounts were associated with missile proliferation, unrecorded gold sales, and allegedly North Korean leader Kim Chong-il's political slush fund, tanked the black market value of North Korean currency, disrupted legitimate commerce, and reportedly necessitated a scaling back of festivities associated with the Dear Leader's birthday."[94]

North Korea is a complicated, isolated country. Dealing with the reclusive communist state requires a comprehensive, focused, and consistent policy. The lessons that can be learned from an examination of the six-party process and North Korean policy as a whole during the Bush administration are important. Setting a policy and sticking with it are extremely important for dealing with North Korea and prevents miscommunication to the power brokers in Pyongyang. In addition, an interagency process that involves infighting and that prevents decisions from being permanent and transparent has the potential to completely unravel any potential gains. The potential pressure points for leveraging North Korea remain. The Obama administration can and should take action using the Treasury Department, as this is an option that can work. But as action is initiated, Washington should be prepared to stand its ground and follow through with ensuring the North Koreans concede to important issues that will lead to dismantlement. Ultimately, a policy that is focused more on engagement than putting any amount of pressure on North Korea is likely to lead to North Korea's continued existence as a nuclear state, and a state that engages in proliferation in order to fund its elite and the military. Thus, the failure of the Bush administration to disarm North Korea's nuclear program successfully (and the Clinton administration before it) now leaves the current government in Washington with many difficult decisions to make, and few viable options.

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"A New Approach to Counter Nuclear Proliferation on the Korean Peninsula"

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Abstract

Attempts to reach and implement an agreement with North Korea to eliminate its nuclear program so far have failed. Efforts continue, but Pyongyang grew increasingly confrontational during early 2009. Prospects appear to be growing that the North will move ahead with an expanding nuclear arsenal. Should diplomacy fail, options to deter the Democratic People's Republic of Korea from continuing on its nuclear course are limited. War would be a disaster for all countries in the region. Tighter sanctions are unlikely to work without China's effective cooperation. So far, Beijing fears a North Korea facing economic collapse more than a North Korea with nuclear weapons. To encourage the People's Republic of China to take a more active role, the U.S. should indicate that the nightmare of a nuclear DPRK would be shared by all countries in the region, including China. In particular, Washington should state that while it remains committed to nonproliferation, it would be uneasy with the North possessing a nuclear monopoly among smaller powers in Northeast Asia and therefore would not oppose decisions by South Korea and Japan to respond with their own nuclear weapons programs. While viewing such proliferation as undesirable, the U.S. would be even more concerned about Pyongyang possessing a nuclear advantage over its neighbors. However, Washington's goal remains that of nonproliferation, so the U.S. hopes to continue working with Beijing to ensure that the Korean peninsula remains nuclear weapons-free. Washington would encourage the PRC to redouble its efforts to convince the North to adopt a policy of cooperation rather than confrontation. If the U.S. and China were able to successfully work together to resolve the North Korean nuclear issue, it would create a model for future cooperation in confronting future economic and geopolitical challenges.

Key Words: Bush administration, Agreed Framework, nuclear program, proliferation, Japan, Taiwan, South Korea, North Korea, China, Kim Jong-il, Six-Party Talks, sanctions, nuclear monopoly, arms race, regional stability.

Introduction

The Bush administration targeted the so-called Axis of Evil, but its strategy to prevent proliferation proved unsuccessful. Iraq turned out to lack an atomic weapons program. In contrast, Iran appears to be moving forward to develop nuclear weapons, only pausing periodically to negotiate with the European Union. Despite sporadically issuing threats again Tehran, the Bush administration proved to be largely impotent, staying in the background. The Obama administration hopes negotiation and engagement will generate better results, but the odds appear to be long.

North Korea, too, seems to be accelerating its movement down the nuclear path despite Washington's opposition. The Bush administration's policy first was to ignore the North and hope the problem would disappear. Then Washington pursued the six-party talks, leading to a brief moment when it appeared that the Democratic People's Republic of Korea was prepared to abandon its program. But the process came to an acrimonious halt last fall. More recently, Pyongyang has resumed nuclear and missile testing and has intensified its provocative, confrontational course.

The DPRK might never have been serious, though Washington has contributed to the break down with its refusal to engage in bilateral talks, persistent threats of military action, and its tendency to change deals unilaterally.[2] While the North's latest actions don't prevent a negotiated settlement, the prospect of successful diplomacy is not bright.

Some analysts appear to hope for a miracle. A few years ago author Bruce Gilley offered what he termed an "immodest proposal" to resolve the issue: "Beijing should invade North Korea on humanitarian grounds and establish a China-backed transitional regime there. The U.S. and its allies in Asia should provide diplomatic and logistical support to the operation, while the U.N. should provide its legal blessing." The operation, Gilley proclaimed, "could be a clean-cut affair."[3] Of course, it would have been more realistic for Gilley to hope for an invasion from Mars.

The U.S. should engage the DPRK rather than expecting a miracle. Washington should continue working with other nations in the region, especially China and South Korea, in an attempt to ensure a nuclear-free Korean peninsula, while recognizing that the effort might not succeed. As part of that process, the U.S. should brandish the prospect of further proliferation, possibly reaching South Korea, Japan, and even Taiwan, as an inducement for North Korea to deal and, more importantly, for China to press Pyongyang to deal.

The Genesis of a Nuclear Crisis

The North Korean nuclear energy program began in the 1950s, though the prospect of a nuclear weapons program did not become clearly apparent until 1992. The first nuclear crisis was temporarily defused in 1994 with the Agreed Framework, which froze the DPRK's nuclear activities in exchange for shipments of heavy oil and construction of two light water nuclear reactors.[4]

With the election of George W. Bush in 2000, U.S.-North Korean relations took a dramatic turn for the worse. The president publicly reversed Secretary of State Colin Powell's intention to pick up where the previous administration had left off. President Bush very publicly disagreed with ROK President Kim Dae-jung during their March 2001 summit over the latter's "Sunshine Policy" of engagement with the North. Washington and Pyongyang were unable even to agree to an agenda for talks. In January 2002 Bush termed the North a member of the "axis of evil."

In October 2002 Assistant Secretary of State James Kelly visited North Korea, charging Pyongyang with having instituted a highly enriched uranium (HEU) program, a violation of the spirit if not the letter of the Agreed Framework. (Kelly said that DPRK officials acknowledged the existence of the program, but the North subsequently disclaimed any HEU production.) Donald Gregg, chairman of the Korea Society, and Don Oberdorfer, formerly a *Washington Post* correspondent, reported that Kim Jong-il made a written offer through them in November 2002 to "resolve the nuclear issue in compliance with the demands of a new century," but the Bush administration failed to respond.[5] A confrontational spiral rapidly developed.[6]

In November 2002 the U.S. successfully pressed Japan and South Korea to suspend oil shipments under the Agreed Framework. The Korean Peninsula Energy Development Organization (KEDO) later suspended reactor construction as well. Pyongyang restarted its small reactor, resumed construction of the larger two facilities, eliminated inspectors of and seals placed by the International Atomic Energy Agency and, on January 10, 2003, announced its withdrawal from the Nuclear Nonproliferation Treaty. The IAEA referred the case to the UN Security Council, while military preemption was discussed as an option in the U.S.

The DPRK began to reprocess the 8000 spent nuclear fuel rods, from which an estimated four to six nuclear weapons could be created, a step Larry Niksch of the Congressional Research Service called "the most dangerous North Korean move."[7] The sporadic six-party talks, with the U.S., DPRK, People's Republic of China, South Korea, Japan, and Russia, lurched forward uncertainly before yielding a denuclearization

accord in November 2007. But that plan fell apart last year in a disagreement over verification procedures for North Korea's account of its nuclear activities. Although it is tempting to blame only Pyongyang, the U.S. also moved the goal-posts, so to speak.[8] By spring 2009 the North had undertaken another nuclear test and North Korean officials stated that they intended to continue their nuclear weapons program and refuse to return to the six-party talks.

Assessing Pyongyang's intentions is well-nigh impossible, though in early 2009 succession issues loomed large as a result of Kim Jong-il's ill health. Some mixture of deceit and paranoia also likely played a role. Finally, reported the Council of Foreign Relations: "the apparent timing of key events also makes it possible that the speed at which the North pursued its HEU program, as well as Pyongyang's changing negotiating position since October 2002, may be partly explained by its increasing fear of the United States," fear exacerbated by the Bush administration's mistakes.[9]

As a result, the DPRK is rapidly moving towards becoming a nuclear state. What seemed to be a nascent program with the mere possibility of a bomb or two that was frozen and under international view has become a far bigger and more serious threat, with active plutonium reprocessing, nuclear testing, possible weapons production—and no international oversight.

Development of a North Korean atomic arsenal would have dramatic and damaging consequences in Northeast Asia. A negotiated settlement through both multilateral and bilateral talks obviously is the best solution. Pyongyang's willingness to deal seems to be steadily declining, but its desire for security and prestige always threatened to out-weigh economic considerations. Increased military influence as the North enters an uncertain leadership transition makes diplomatic accommodation less likely as well. Thus, the North may well move forward irrespective of any offer made by the U.S. and other states.

Then Washington would have to acquiesce or employ coercion. But economic sanctions could not work without Chinese and South Korean support, and might not work even then. After all, Pyongyang moved little even as a half million or more North Koreans were starving to death. Military action might not reach all of the North's nuclear sites, could spread radioactive fall-out throughout the region, and likely would trigger a war, one that would be far more costly than Iraq. Should talks fail, there will be no good options.

Achieving Regional Cooperation

Washington cannot dictate policy in the region. Even South Korea no longer is willing to play a compliant U.S. client. After two left-wing

administrations, the current government reflects a popular shift towards tougher and more conservative attitudes. However, since the Cold War has ended opinions have shifted sharply against America and, given the ongoing change in generational leadership, seem unlikely to be reversed. Noted David Kang of Dartmouth College, the ROK "is moving in the direction of diminished United States influence."[10] Indicative of the major differences between the two countries was the declaration of Chung Dong-young, unification minister in the Roh government, that the North had a "basic right" to civilian nuclear power.[11]

Although popular antagonism towards Pyongyang has risen in the midst of continuing DPRK provocations, even conservatives in South Korea want to avoid a military confrontation. Moreover, while Seoul has cut back aid as bilateral relations with the North have deteriorated, South Korean officials still would be hesitant to back potentially nation-breaking sanctions. They watched German reunification with barely disguised horror, realizing the tremendous cost that would fall on the ROK from a similar process on the peninsula.

Washington's diminished influence is evident outside of the ROK as well. America, Kang added, "is no longer the unquestioned leader in Northeast.[12] Most importantly, none of the DPRK's neighbors are eager to destabilize the North. Kang observed that most East Asian nations "believe that North Korea can be deterred, and instead are worried about the economic and political consequences of a collapsed regime."[13] Without doubt, the process could be chaotic and bloody, and Robert Kaplan has argued that the North already is mid-way through a process of collapse.[14]

The PRC shares many of the ROK's concerns about instability in the Korean peninsula, particular an increased flow of refugees into China's border provinces, heavily populated by ethnic Koreans. No doubt Beijing also would prefer not to have a united Korea allied with America and garrisoned by U.S. troops on its border. Xu Wenji of Jilin University in Changchun, China, noted that while America was far away, "this is our neighbor and any disturbance on the Korean Peninsula has a profound effect on China."[15]

Moreover, the prospect of a North Korean bomb by itself gives Beijing little reason for concern, while the continued controversy provides it with leverage in dealing with the U.S. As Harvard physicist Hui Zhang has explained, Beijing “believes the nuclear crisis is mainly the business of Washington and Pyongyang.”[16] As a result, Chinese officials, including those in the military, often have said that they will not allow North Korea to collapse.[17]

In fact, the PRC tends to respond to North Korean provocations with sharp language, before lapsing into calls for calm and restraint. The pattern repeated itself after Pyongyang's missile tests and nuclear test in mid-2009.[18]

Antagonism in Japan over North Korea's past kidnapping of Japanese citizens has generated greater popular support for imposing sanctions. Pyongyang's missile and nuclear tests have further hardened opinion in Japan. However, fear of the consequences might cause Tokyo to step back from direct confrontation. Russia may have the least directly at stake, though instability or war on the peninsula obviously would be undesirable in its eyes. Moscow also has been improving its relations with the North of late.

Winning China's Assistance

Although Seoul's position is important, the PRC is the most important regional player. Assessing its actual influence in Pyongyang is difficult. Some China critics contend that Beijing is calling the shots and manipulating North Korea for its own purposes. However, the DPRK long has guarded its independence and the late Kim Il-sung systematically eradicated factions with links to both Beijing and the Soviet Union.

Most observers presume that the combination of its historic ties and large-scale shipments of fuel, food, and consumer goods provide China with leverage lacking in Washington. Yet Pyongyang has been ever-willing to balk at Chinese requests: North Korea has gone ahead with missile and nuclear tests despite public appeals by Beijing.

Still, the North might have no choice but to respond to economic penalties by its much larger neighbor. Although the PRC continues to soften UN Security Council resolutions and sanctions, Beijing did freeze North Korean bank accounts in response to a request by Washington (as part of an investigation in money laundering and counterfeiting), which generated a sharp response in Pyongyang (which made concessions to unfreeze its accounts). Tougher economic restrictions, with the possibility of virtually shutting down the North Korean economy, might generate a bigger response.

If a negotiated settlement is possible, active Chinese involvement is a must. So how best to make Beijing willing to pay the price of pushing Pyongyang into a deal?

For years the Bush administration publicly urged the PRC to press the North. Undersecretary of State Nicholas Burns urged China to use its "influence and exert some pressure on North Korea."[19] Christopher Hill, the Bush administration's special ambassador detailed to handle the Pyongyang and its nuclear program, said: "We need China to be very,

very firm with their neighbors and frankly with their long-term allies, the North Koreans, on what is acceptable behavior and what is not acceptable behavior."[20] In a barely disguised reference to the PRC, UN Ambassador John Bolton said: "countries that have leverage over North Korea . . . bear the responsibility for trying to use that to bring the North Koreans back into compliance."[21]

Some American officials have tried to use praise to push the Chinese forward, suggesting that delivering the DPRK, as it were, would demonstrate that they had become significant, and positive, contributors to the international system. Yale history professor Michael Auslin believes simply offering to follow the PRC's lead is enough: "Beijing has long desired a leading role in the region; now it can have it, and the responsibility for success as well."[22]

Republican presidential contender Sen. John McCain (R-Ariz.) took a different tack in 2008, opining that Beijing's attitude should be a "defining issue in our relations with China" and that "There are many key areas that we are cooperating in that I believe would be affected, including trade, by China's failure to act."[23] More recently former Undersecretary of State Robert Joseph contended: "China must know that there are costs and risks for not acting to end the North's nuclear programs. Some of those costs we can impose if we are willing to pay an economic price."[24]

Carrots or sticks might help, though the PRC is not likely to act against its perceived interest in either case and almost certainly would bridle at a public ultimatum which would leave compliance as an intolerable loss of prestige. A better approach would be to make it clear that China will share in the nightmare created by a nuclear North Korea.

Auslin contended that Chinese President "Hu Jintao certainly doesn't want a nuclear Pyongyang capable of targeting every Chinese city."[25] That seems a remote possibility, however, and Beijing is unlikely to much fear a DPRK attack. Much more credible would be the threat of proliferation to other nations.

If China has one fear from the impact of a DPRK bomb, it is that nuclear weapons would not stay in Pyongyang. (There is abundant evidence of Chinese displeasure with the North, since the PRC values regional stability and does not want to encourage U.S. coercion. But these sentiments might not be sufficient to cause Beijing to risk attempting to coerce a recalcitrant North.)

That is, no one in the region is likely to be comfortable with the DPRK's possessing a nuclear monopoly among smaller states. Thus, absent countervailing U.S. pressure, a North Korean nuclear arsenal would encourage the spread of nuclear weapons to South Korea and

Japan, and perhaps beyond, including Taiwan.[26] Even the most peace-minded state would be reluctant to sit atomically naked if such an unpredictable actor as North Korea developed a nuclear capability. One Chinese scholar noted that any nation would worry that "A regional nuclear arms race among existing nonnuclear neighbors could leave it surrounded."[27]

However, the prospect of proliferation might seem unlikely since American policymakers traditionally oppose any spread of nuclear weapons. This is one reason why some U.S. analysts are so worried about the prospect of a North Korean nuclear bomb. Kurt Campbell, a Clinton administration Defense Department official now with the Center for Strategic and International Studies, explained: "The worry is that if North Korea tests a nuclear weapon, then it is difficult to put the genie back in the bottle and that it triggers a host of other countries to reconsider their own pledges not to pursue nuclear weapons." He added: "It could lead other countries like Japan, South Korea and Taiwan to go nuclear."[28]

Nevertheless, a North Korean bomb would force the U.S. to reconsider its strategy. Should the North move ahead with its nuclear program, Washington would find itself with few options. Engagement and sanctions would have failed. Military action likely would ignite a disastrous war.

Although accepting, if not encouraging, proliferation would seem to be a dramatic reversal of U.S. policy, Washington already has begun to adjust its stance. While nonproliferation is desirable in principle, Washington has readily abandoned that general principle when convenient. For instance, America did little to discourage British, French, and Israeli acquisition of nuclear weapons. Today it ignores Israel's substantial arsenal while demanding that Iran forswear the nuclear option. The U.S. chose not to engage in a preemptive strike against Chinese and Russian nuclear facilities.

Moreover, Washington has come grudgingly to acknowledge that America's abstract preferences cannot overcome insecure regional dynamics, as, for example, that evident in South Asia. The Clinton administration imposed sanctions on both India and Pakistan for developing nukes, with no impact other than to anger both nations. In contrast, the Bush administration worked assiduously to improve relations with New Delhi and, indeed, negotiated an agreement which, in practice, accepted India's status as a nuclear power.

The deal was complicated and controversial, but won approval in both nations. The U.S. agreed to sell nuclear technology to India if the latter committed itself to inspections of its civilian facilities and fulfilled

some provisions of the Nuclear Nonproliferation Treaty, which it has not signed. Criticism was sharp. The agreement arguably undercut the principle of nonproliferation, and could encourage other states to demand special status, like India, as well as encourage other nuclear powers, such as China and Russia, to make special deals with favored states. Nations like the DPRK and Iran might choose to hang tough in hopes of eventually winning international acceptance of their weapons status. Finally, Independent Institute scholar Ivan Eland has worried that India itself might some day become a potent foe of America.[29]

But other nations already have a powerful incentive to develop an atomic arsenal, including deterring Washington from acting against them. Observed analysts Ted Galen Carpenter and Charles V. Pena: "The most reliable deterrent--maybe the only reliable deterrent--is to have nuclear weapons."[30] They believe such a concern motivates both Iran and the DPRK. Kenneth Adelman, the former head of the Arms Control and Disarmament Agency has also contended that this is Pyongyang's main objective.[31] (America's willingness to coerce smaller nations may have influenced India as well.[32])

India already was nuclear capable and likely to build a significant arsenal without Washington's acquiescence. The U.S.-India agreement had the significant virtue of recognizing nuclear reality while improving relations with what was becoming an increasingly important international player. Washington's new-found flexibility allowed it to rely on a larger set of tools to advance its ends, including, paradoxically, threatening proliferation in the hopes of curbing proliferation, in the case of the North's neighbors.

Using the Nuclear Stick

Thus, several observers have suggested that Washington brandish the "stick" of a regional nuclear arms race. For instance, foreign policy scholar Ted Galen Carpenter suggests informing the DPRK that if it acquires an atomic arsenal, "Washington will urge Tokyo and Seoul to make their own decisions about acquiring strategic deterrents."[33] Carpenter focused on North Korea: "The one chance of getting the North to abandon its current course is to make it clear that Pyongyang may have to deal with nuclear neighbors and would, therefore, not be able to intimidate them."[34]

Other American opinion-leaders would adopt the same strategy, but aim it more at Beijing than the DPRK. Wrote conservative columnist Charles Krauthammer:

> We should go to the Chinese and tell them plainly that if they do not join us in squeezing North Korea and thus stopping its march

> to go nuclear, we will endorse any Japanese attempt to create a nuclear deterrent of its own. Even better, we would sympathetically regard any request by Japan to acquire American nuclear missiles as an immediate and interim deterrent. If our nightmare is a nuclear North Korea, China's is a nuclear Japan. It's time to share the nightmares.[35]

Adam Garfinkle, then editor of *The National Interest*, took a similar stance. In his view a North Korean bomb would make Japanese nuclear armament almost axiomatic. Then the PRC would "have to choose between a nuclear North Korea and Japan (and maybe South Korea, too) on its doorstep, or joining with the U.S. and others to manage the containment" of the DPRK.[36] Kenneth Adelman made a similar proposal in a war game hosted by *The Atlantic*. Indeed, Adelman went further, pushing for a force reduction in South Korea, explaining: "I don't want the United States to take the traditional approach of reinforcing troops, adding nuclear weapons—all the things we've done over the last forty years. We need to give the region more responsibility."[37]

Some analysts believe the remedy might be effective but still too costly. Bobby Earle of the conservative GOPUSA remained concerned about proliferation: "Building up nuclear arsenals in the region might lessen North Korea's ability to threaten or bully its neighbors with nuclear weapons, but it does nothing to address the nuclear proliferation issue."[38] Indeed, the chief danger of a North Korean bomb to America would be the prospect of transfers to non-state actors, something which should be treated as a *casus belli*. It is a good reason to work overtime to dissuade the North from building a bomb, but the obvious problem is finding a means of dissuading Pyongyang.

A different worry was expressed by Robert Kagan and William Kristol, who argued that the prospect of Japan and Taiwan's creating nuclear weapons could spur "an East Asian nuclear arms race" and "should send chills up the spine of any sensible American strategist."[39] However, the U.S. and others have far more to fear from nuclear weapons in the hands of authoritarian or totalitarian states than in the hands of responsible democratic allies. If a North Korea bomb becomes a foregone conclusion, then Washington will have to compare two ugly futures: North Korea alone with nuclear weapons versus North Korea with nuclear weapons facing America's allies with nuclear weapons.

In the former case, the U.S. will be expected to maintain a nuclear umbrella over Japan and South Korea, enmeshing Washington in a region that has grown far more dangerous. Small regional controversies will threaten to become major global crises. American policymakers will

have to be prepared to risk Los Angeles and San Francisco for Seoul and Tokyo. The risk will be small, but the potential costs will be catastrophic.

A second best solution would be to leave allied states whose interests will not always coincide with those of America with their own deterrent capabilities. Such a policy would have the secondary advantage of deterring Chinese adventurism. Beijing has pledged a "peaceful rise," but would be encouraged to follow such a strategy if its neighbors were capable of imposing a high price for aggressive behavior.

The advantages of this strategy would go further, however. The mere threat of extended proliferation could preclude the initial problem of a North Korean atomic capability. If Pyongyang decides to develop an atomic bomb, it will be because Kim Jong-il believes that his nation or his political dynasty, or both, will be more secure as a result. (A nuclear capability presumably would allow the North to deter any military attack, force surrounding states to treat it with respect, and encourage nations and international organizations to offer additional economic aid for nonthreatening behavior.)

But if the DPRK realized that it would not possess a nuclear monopoly among smaller states--that it would remain the poorest nation in the region with the smallest arsenal--it would have less incentive to join the nuclear club. The North's sensitivity to perceived nuclear threats against its own security is evidenced by its demand in 2004 that the Washington eliminate its nuclear umbrella for the South. The next year North Korea's chief nuclear negotiator, Kim Gye-gwan, said his nation would give up its weapons program if America ended its nuclear threat to the DPRK.[40] It's hard to credit anything said by any North Korean official, but it is possible that a credible warning that South Korea and Japan are likely to follow the North might, thereby reducing the utility of its arsenal, encourage Pyongyang to be more willing to accept a negotiated settlement, winning economic benefits rather than generating a security stalemate, thereby avoiding a crisis.

A North Korean Bomb Anyway?

Of course, the DPRK still might prefer to possess nuclear weapons, even if other powers matched it one, two, or three bombs for bomb (especially since Pyongyang may be hoping to deter the U.S. more than its neighbors.) Washington then could change its mind and allow its bluff to be called. American policymakers might decide that a multi-sided nuclear order in East Asia was too dangerous or that serial expansion in East Asia would destroy the global nonproliferation framework.

Or Washington might decide that, bad as proliferation would be, the U.S. nevertheless would be more secure if allied states were defending

themselves. Indeed, Washington today confronts North Korea only because the former is defending the ROK, with 26,000 troops on station. Were the U.S. not determined to micro-manage East Asian affairs, Pyongyang's attentions would be elsewhere. Thus, were America to draw back, it would not have to worry about risking Los Angeles for Seoul or Tokyo if the DPRK developed long-range nuclear missiles.

As suggested by Krauthammer, the U.S. could threaten to provide its nearby allies with a small nuclear inventory, sufficient to cancel the DPRK's advantage, as well as whatever anti-missile technology is available. This would be simple but controversial, turning Washington into the proliferator-in-chief.

Or the U.S. could simply drop its objection to the acquisition by its allies of a countervailing weapon. (In recent years some American officials have expressed the fear that friendly states might be tempted to proliferate in response to a North Korean bomb. Whether they have been speaking out of fear, as a warning, or both, is unclear).

American abandonment of its objection to proliferation might be enough to spur the ROK and Japan to move forward. In fact, in time both South Korea and Japan may decide that their national interests require nuclear weapons, irrespective of their present U.S. security guarantees, especially if they begin to doubt Washington's willingness to risk nuclear retaliation to defend distant allies which lie next door to other major, nuclear-armed powers. This will be particularly the case if tensions rise with China. In time Beijing is likely to possess a potent, if still limited, nuclear arsenal fully capable of deterring American intervention on behalf of the PRC's neighbors. Rather than trusting the willingness of U.S. officials to engage in self-immolation, other countries may decide the only option is to develop their own deterrents.

Still, developing nuclear weapons would be controversial in any nation. Both South Korea and Japan are capable of creating an atomic arsenal and have debated doing so. Taiwan, too, obviously has the necessary economic infrastructure to develop nuclear weapons. Its intentions are less obvious and its international situation is more complicated, but the spread of nuclear weapons in the region might affect the thinking in Taipei as well.

A South Korean Bomb?

Seoul possesses 19 nuclear plants and has the industrial, technological, and scientific assets necessary for a program. Peter Hayes of the University of Sydney has observed: "There is little doubt, however, that South Korea now has a near-nuclear option."[41]

The ROK actually began to develop nuclear weapons more than three decades ago under military dictator Park Chung-hee, who worried

about the North's nascent program. Only American pressure caused the South to cease its efforts. (Washington pressed South Korea to stop and such nations as Belgium, Canada, and France to drop their sales to Seoul of fuel fabrication facilities, heavy water reactors, and reprocessing systems.) The South's interest in a nuclear program at least in part reflected its fears about the reliability of America's defense guarantee in the aftermath of President Richard Nixon's withdrawal of an army division in 1970 and the U.S. withdrawal from Vietnam. There also have been unverified reports suggesting that the ROK came quite close to developing an atomic weapon at the beginning of the 1980s.[42]

Some South Koreans have worried about the regional security environment, even absent a DPRK bomb. Fear of Seoul's vulnerability to North Korean artillery and missile attack probably has encouraged ROK officials to look for another military tool. Wrote Kim Taewoo of the Korean Institute of Defense Analyses: "Probably the most fundamental dilemma facing South Korea will be that it ends up without nuclear weapons anyway but with nuclear weapons in the hands of the surrounding states, outward-looking Chinese military modernization, and Japan's growing nuclear potential, not to mention the nuclear suspicion in North Korea."[43] During the summer of 1994 a best-selling book in the ROK argued that a united Korea would need nuclear weapons to counter China and Japan.

Not surprisingly, the crisis involving North Korea has caused some South Koreans to rethink their nation's policy. In 1994 Kim Tae-u, Director of the Peace Strategy Research Center, declared: "The time has come for us to end a nuclear policy that has abandoned the effort to help ourselves. We should not allow ourselves to stand uncovered against the winds from the United States and North Korea, which sway back and forth."[44]

Similarly, commented a South Korean diplomat to Michael Moran of MSNBC: "Much of our thinking for the past two decades, and in Japan, too, I would say, has been based on the idea that we are under the U.S. nuclear umbrella." But, he worried, "If the U.S. cannot prevent North Korea from testing a nuclear weapon, how can it deter North Korea from using one? That's the basic questions being asked today."[45] A few years ago Assemblyman Park Jin voiced a similar sentiment: "If North Korea says it has nuclear weapons . . . why shouldn't we have the same?"[46]

ROK Hedging

Indeed, Seoul may have long adopted a hedging strategy, despite formally renouncing any effort to develop an atomic arsenal. There is evidence that Seoul consciously maintained a "virtual nuclear capability," allowing it to better meet future exigencies.[47] Moreover,

2004 was highlighted by the dramatic revelation of laboratory experiments involving plutonium and uranium enrichment stretching back to 1982. The ROK government claimed that they were unauthorized and established new safeguards. Most important, Seoul went into a vigorous lobbying mode, especially in the U.S., to limit the international fall-out, to coin a phrase. The government-backed Korea Institute for National Unification published a monograph explaining: "Although the failure of reporting was observed as a matter of serious concern by the IAEA, the 2004 incident, in no way, should be interpreted as representing a desire by the ROK government to pursue a nuclear weapon development program."[48]

The International Atomic Energy Agency praised the ROK for its cooperation, but criticized the Roh Moo-hyun government for being less than forthcoming. In its view, Seoul's explanations were not entirely satisfactory. Indeed, observed Edward Olsen of the Naval Postgraduate School, "ROK officials cautiously acknowledged the experiments could have more theoretical significant than originally ascribed to them."[49]

Other observers were equally suspicious. A report from the Institute for Foreign Policy Analysis concluded: "It is possible that the experiments were simply the result of unsupervised scientists indulging their personal curiosity, but the fact that maintaining an intellectual capacity to develop a nuclear weapons program someday (should it be deemed necessary for national security) would not be inconsistent with the thinking of many South Korean policymakers."[50]

Joseph Cirincione, director of the Non-Proliferation Project at the Carnegie Endowment for Peace, observed: "It is no surprise nations like South Korea are beginning to hedge their bets in light of the North Korean nuclear weapons advances."[51] Analyst Ehsan Aharari pointed to three reasons "why South Korean scientists ventured into the forbidden territory of developing enriched uranium, which takes them so close to developing nuclear weapons."[52]

(The experiments probably violated the 1992 nuclear agreement signed with North Korea, allowing Pyongyang to put the incident to good propaganda use. The latter accused the U.S. of applying a "double standard" to the two Koreas.[53] In return, Chris Hill, U.S. Ambassador to South Korea, argued that Pyongyang should follow the example of cooperation with the IAEA set by Seoul.[54])

Ongoing North Korean developments are occurring against a broader foreign policy backdrop that might encourage Seoul to seek a weapon. Noted analyst Yoel Sano: "Neither South Korea nor Japan is content to occupy forever the secondary roles they have been playing until now, auxiliary to the US. While Japan's leaders have long bemoaned Tokyo's

lack of global clout in relation to the size of its economy, South Korea is also becoming increasingly assertive. There has been a generational shift in both countries, which is also fostering new foreign policy visions."[55]

The late President Roh Moo-hyun advocated that the ROK strengthen its "independent defense capabilities" and become a regional balancer.[56] He once seemed to rule out developing nuclear weapons, but in the context of assuming that "nuclear development will not be permitted in Korea--either North or South."[57] Although his successor, Lee Myung-bak, is a proponent of a strong alliance with America, the latter is taking a more uncompromising stance towards Pyongyang and could very well decide to pursue a more assertive regional strategy. In fact, there appears to be widespread South Korean support for taking on a more active international role.

After the North's latest weapons tests, Secretary of State Hillary Clinton stated: "I want to underscore the commitments the United States has and intends always to honor for the defense of South Korea and Japan."[58] Nevertheless, Seoul requested a defense guarantee in writing against a North Korea nuclear weapon.[59] Even if Washington agrees, paper guarantees might not be enough for a nervous ROK. After all, the South has no way to enforce such a promise on a future administration even if made with full sincerity today.

In fact, though the South Korean public tends to favor a more pacific course, there are indications that interest among policymakers in developing a nuclear capability is growing. Reports Jungmin Kang, a visiting scholar with the Stanford Institute for Economic Policy Research: "Regardless of U.S. assurances, it seems some South Korean politicians are so fed up with North Korea's never-ending threats toward the South that they are having serious discussions about Seoul's 'nuclear sovereignty'." [60] Among those raising the issue are members of parliament.[61]

Indeed, a series of conspiratorial novels blaming the U.S. for pitting the two Koreas against each other and preventing them from collaborating on a joint nuclear weapon to respond to a Japanese atomic program ended up as best sellers in the ROK. Suspicion also has been voiced that some South Koreans are not terribly concerned about a North Korean bomb because Seoul would inherit it after reunification.

Japanese Nuclear Options

Japan's network of plutonium breeder reactors has led some observers to call Japan a "paranuclear" or "virtual nuclear" state. Tokyo has admitted that it has the ability to quickly create a nuclear arsenal if it desired. In fact, Japan could develop nuclear weapons within a year or even six months by some accounts. But as the only state to suffer a

nuclear attack, Japan has long officially rejected the possibility of building an atomic arsenal; indeed, Tokyo's pacifist constitution and popular attitudes have hindered development of a significant conventional military and deployment abroad of what conventional forces it currently possesses.

However, as Japan increasingly rethinks its international role, the development of nuclear weapons appears to be a more serious prospect. After China's nuclear test in October 1964, Prime Minister Eisaku Sato claimed that his nation was ready to develop such weapons if Washington did not extend its nuclear umbrella. Reports later surfaced of an internal study between 1967-1970 on nuclear options, which reached a negative conclusion. In 1994 Prime Minister Tsutomu Hata observed: "it's certainly the case that Japan has the capability to possess nuclear weapons but has not made them."[62] His comments did more to unsettle than reassure Japan's neighbors.

The issue appeared to receive little public attention during the Cold War, but Japanese officials long talked, usually in whispers to one another, about preserving the option to develop nuclear weapons.[63] Years later it was revealed that an official report in 1969 contended that Tokyo should "keep the economic and technical potential for the production of nuclear weapons, while seeing to it that Japan will not be interfered with in this regard."[64]

Japanese perceptions of a more hostile international climate seem to be causing more than a passing thought to reviving this option. The first nuclear crisis involving the DPRK caused Tokyo to informally raise the possibility of making nuclear weapons.[65] In 1995 Tokyo conducted an internal review of its nuclear options in the wake of the first North Korean nuclear crisis. Initiated by Socialist Party Prime Minister Tomiichi Murayama, the report stated: "The discussion in favor of owning nuclear weapons lacks sufficient study into the negative impact, while the idea that not possessing nuclear weapons is detrimental is not sufficiently backed by military theory."[66] Nevertheless, in the intervening years it has become evident that some Japanese officials harbor latent nuclear ambitions.

For instance, in October 1999, parliamentary vice defense minister Shingo Nishimura resigned after proposing that Japan develop nuclear weapons. Three years later Liberal Party President (and later opposition leader) Ichiro Ozawa, who, as prime minister, had accepted Nishimura's resignation, observed that "China is applying itself to expansion of military power in the hope of becoming a superpower" and could get "too inflated" and its threats could frighten the Japanese people. In that event: "It would be so easy for us to produce nuclear warheads. We

have plutonium at nuclear power plants in Japan, enough to make several thousand such warheads." He added that he told a Chinese intelligence official "that if we get serious, we will never be beaten in terms of military power."[67] Under fire at home and abroad for his comments, Ozawa explained that he was not calling for development of nuclear weapons, which would not benefit Japan; rather, he claimed to hope to improve China-Japan relations.[68] His "explanation" was not entirely convincing. In April 2003 Ozawa again discussed Japan's nuclear option.

Even more significant were the comments of Chief Cabinet Secretary Yasuo Fukuda on May 31, 2002, indicating that Japan's peace constitution did not preclude acquisition of nuclear weapons. Events have "changed to the point that even revising the constitution is being talked about," he observed, and "depending upon the world situation, circumstances and public opinion could require Japan to possess nuclear weapons."[69] Shinzo Abe, a senior adviser to the prime minister, later said much the same thing about Japan's constitution. Another high-ranking government official, Yasuo Fukada, observed that changing circumstances "could require Japan to possess nuclear weapons."[70] Abe went on to chair the Liberal Democratic Party and serve as prime minister.

Regional Fears

Terumasa Nakanishi and Kazuya Fukuda, both of the University of Kyoto, have argued: "the best way for Japan to avoid being the target of North Korean nuclear missiles is for the prime minister to declare without delay that Japan will arm itself with nuclear weapons."[71] Similarly, Shingo Nishimura, an opposition member of parliament, has worried that Tokyo is doing nothing in the face of North Korean threats: "Japan should renounce its non-nuclear principles."[72] Matake Kamiya of the National Defense Academy argued that Japan's constitution, which nominally bars possession of any military, would allow possession of nuclear weapons "for strictly defensive purposes."[73]

Relations among the two Koreas and Japan remain difficult because of Tokyo's brutal colonial rule in the first half of 20th century. While Tokyo has little to fear from the two Korean states (or even an aggressive united Korea) armed with conventional weapons, a Korean government with nuclear weapons might be seen as a very different kind of threat.

The DPRK's animus towards Japan is obvious and Pyongyang's program may be directed at least to some degree in that direction: "Japan is going against the trend in the world toward non-nuclearization and peace after the end of the Cold War and is actively stepping up its attempts to become a nuclear power," stated one official publication a decade ago.[74] Moreover, North Korea has regularly threatened Tokyo as

the former's relations with both America and Japan worsened in recent years. Pyongyang possesses the Scud-D, with a range of 1,100 kilometers, which could reach Japan. A nuclear-armed DPRK might eventually be able to marry an atomic warhead to its missiles. Indeed, the DPRK's July 2006 missile test set off a discussion of the desirability and constitutionality of preemptively knocking out a North Korean missile before it was launched. Opening such a debate would naturally bleed over into a discussion of nuclear weapons, especially if Pyongyang created a deliverable arsenal.

Japan's relations with the South are better, but not good. And South Korean officials, too, have raised concerns about Tokyo's nuclear stance. Although the ROK would be unlikely to strike Japan militarily, possession of nuclear weapons would empower Seoul in such disputes as possession of the Dokto/Takeshima Islands. Tokyo is extremely sensitive to the South's flirtation with atomic research as well as the DPRK's nuclear weapons program. Even the relatively minor controversy over the South Korean nuclear experiments caused Japan's cabinet Secretary Hiroyuk Hosoda to call the tests "inappropriate" and insist that the international community "must not allow this to lead to development of nuclear weapons." He called for strict inspections to enforce the NPT.[75]

Fear of North Korea has joined concern over periodically more tense relations with the PRC. Bilateral problems are manifold, ranging from Japan's alleged lack of acceptance of responsibility for war-time atrocities to Tokyo's friendliness with Taiwan to China's increased influence throughout East and Southeast Asia. A sharp downturn in relations might spur an open, if sporadic, debate about the issue both in and out of Japan. In today's world Japanese may remember Ichiro Ozawa's comment: "Northeastern Asia, in which both China and North Korea are located, is the most unstable region in the world."[76]

Overall, Japanese Prime Minister Junichiro Koizumi pursued a more assertive foreign policy, taking tough stands towards both the PRC and North Korea. His government also sparred with South Korea over territorial claims and textbook lessons. All told, noted Liu Hua, a student at Beijing University, "the voice of boosting Japan's defense capabilities and gaining security autonomy from America is much louder than before."[77] Prime Minister Koizumi did much to press Japan forward to a more significant international role, and his successors, despite the current vagaries of Japanese politics, seem likely to move further over time.

Pushed to the Brink by the DPRK

Although the Koizumi government did not raise the nuclear option, North Korea's activities have pushed Tokyo towards greater international

involvement, such as the dispatch of peacekeeping forces to Iraq. In its subsequent security guidelines, Japan has taken the unprecedented step of calling Taiwan a security concern. Although Prime Minister Shinzo Abe used the anniversary of the nuclear bombing of Hiroshima to reaffirm Japan's non-nuclear course, his aides suggested that Tokyo study the possibility of developing nuclear weapons after the first North Korean nuclear test.

And now, worries journalist Richard Halloran, "mutterings of Japanese distrust of America's extended deterrence, as the nuclear umbrella is known, have coursed through a skeptical underground discussion." He quotes one Japanese scholar warning that "There are a lot of Gaullists in disguise in Japan." [78]

There remain strong arguments against Japan's developing nuclear weapons, especially against Washington's wishes. Some of the strongest Japanese advocates of such a course have lost influence for other reasons, and Tokyo could face substantial pressure from abroad. [79] Nevertheless, outside circumstances likely would be the determining factor. And the round of missiles and nuclear tests in mid-2009 appeared to spur support for creating both an effective missile defense and a preemptive capacity against North Korean missiles. Moreover, according to Masako Toki at the James Martin Center for Nonproliferation, opposition groups feared that North Korea's nuclear test "could strengthen the argument that Japan should pursue nuclear weapons."[80] Even U.S. Vice President Richard Cheney observed a few years ago: "Japan may be forced to consider whether or not they want to readdress the nuclear issues."[81]

Of course, there is little enthusiasm among Tokyo's neighbors for a Japanese bomb, especially the PRC. One Chinese analyst argued that such a step would encourage other countries "to follow in Japan's steps, ultimately reducing global, regional, and Japan's security." [82] The common hope is that the U.S. government would prevent Tokyo from developing nuclear weapons. However, as noted earlier, North Korean atomic developments might change America's perspective. And it then might not require much encouragement from Washington to change policies in Seoul and Tokyo.

Asian analyst Yoel Sano wrote, "North Korea's nuclear-weapons program remains the main catalyst for any attempts by Seoul and Tokyo to go nuclear." That's not all, however. The changing international security environment could eventually invite a policy rethink in both nations in any case. Notes Sano: "Beyond the immediate threat of North Korea, both South Korea and particularly Japan are seeking a greater global role after decades of junior partnership with the United States."[83]

If either the ROK or Japan exercises a nuclear option, the other seems likely to follow. Moreover, political aftershocks might occur throughout the region, as smaller nations considered developing their own nuclear capabilities. Australia presumably has the industrial capacity, though perhaps not the present incentive, to join an atomic parade.

More controversial would be Taiwan. During its early years, Taipei intermittently engaged in activities that could help develop a nuclear capability. In 2004 there were reports that the International Atomic Energy Agency had discovered evidence of experimentation with plutonium years earlier.[84] In 1974 the CIA warned that Taiwan "will be in a position to fabricate a nuclear device after five years or so."[85] Reliant on America for its defense throughout the Cold War, Taiwan was forced by U.S. pressure to dismantle some irradiation and reprocessing facilities that appeared to be part of a small nuclear program, though others remained. The government then announced that it was capable of developing nuclear weapons, but disclaimed any intent to do so. Nevertheless, nuclear research continued, until intervention by the Reagan administration in 1988.

Moreover, future developments in Taiwan are likely to reflect the status of cross-strait relations. In fact, more than a decade ago Taiwanese leader Lee Teng-hui stated publicly that Taiwan had the capability to build a nuclear weapon.[86] Although he backed away from his assertion that Taipei should reconsider its non-nuclear status, it was obvious that neither Taiwan's capability nor interest had disappeared.

In fact, the rise of the Democratic Progressive Party to power, with its call for Taiwanese independence, raised concerns about future Taiwanese policy. In 2005 Taiwan announced plans to test-fire a missile capable of hitting the Chinese mainland. The nuclear issue bestirred itself after a Taiwanese legislator predicted that President Chen would restart Taiwan's nuclear program. Among media commentary, the *China Post* worried about giving Beijing an excuse to preempt.[87] President Chen did not make any move in that direction, however, and Beijing's reaction to the flurry of speculation about a Taiwanese bomb remained understated.[88]

Still, the future is hard to predict. Although relations between Beijing and Taipei have improved since President Chen Shui-bian left office, the two states remain fundamentally at odds over Taiwan's international status. A sharp deterioration in cross-strait relations with the PRC could spark a hawkish change in Taipei's policy, especially if the entire region is in flux after South Korea and Japan exercise the nuclear option.

Indeed, any attempt by Taipei to create an atomic arsenal might prove more destabilizing than any other likely nuclear development, since Taiwan lacks substantial international recognition and is more isolated globally. Obviously, regional proliferation would affect not just today's putative nuclear powers but today's current nuclear powers as well. Michael Hirsh of *Newsweek* has worried that "Nothing is likelier to make China rush into an arms race--it is now only slowly building up its forces--than a nuclear-armed Japan."[89] A Taiwanese program could have the same effect. Russia, too, might choose to respond by bolstering its nuclear forces and reengaging Northeast Asia.

This obviously is not a pleasant scenario. However, there may be an unpleasant inevitability to the expansion of nuclear weapons and enhancement of existing nuclear arsenals. For instance, Beijing is improving its nuclear capabilities to create a more credible deterrent vis-à-vis the U.S.[90]

Moreover, the prospect of a North Korean bomb without a regional balance might prove to be even less palatable, since it would presume that the U.S. would continue to offer a nuclear umbrella for South Korea and Japan. Retired Air Force Lt. Gen. Thomas McInerney, for one, has favored military action to forestall a DPRK weapon, and, failing that, has advocated installing U.S. nuclear weapons in both the ROK and Japan to counterbalance the North.

A Negotiated Solution

The prospect of either war on the Korean peninsula or regional nuclear proliferation as a result of continuing North Korean development of nuclear weapons should cause all parties to work even harder to find a peaceful solution. The broad terms of a settlement are obvious—indeed, the North already has agreed to such a plan through the Six-Party Talks. However, implementation seems further away than ever.

Some analysts have proposed to reach further, attempting to limit the DPRK's development of ballistic missiles, initiate conventional arms control, open up its economy, account for Japanese kidnap victims, redress human rights violations, and implement greater personal liberty. These are worthy goals all—North Korea's government may be the most brutal and callous on earth—but the more items distasteful to Pyongyang that Washington attempts to include, the less likely agreement will be reached. Even the International Crisis Group contended: "issues such as terminating North Korea's missile program and exports, human rights, economic reform, biological and chemical weapons, and conventional force reductions should not form part of the nuclear negotiations."[91] The focus should remain on eliminating the North's nuclear program.[92]

Despite Pyongyang's ongoing intransigence, the U.S. should continue pursuing a diplomatic solution through both bilateral and regional forums. Moreover, Washington should place more responsibility on North Korea's neighbors, most importantly South Korea and the PRC, in dealing with Pyongyang. Japan and Russia, as well as the European Union, also could play constructive roles. Together, these parties should offer a package deal, with three parts: security assurances, diplomatic respect, and economic development. The first would be built on nuclear disarmament backed by a verifiable inspection regime, leading to mutual conventional force reductions. The second would be official recognition by both the U.S. and Japan. The third would be aid and trade from a variety of countries and international organizations. Although the solution would be multilateral, Washington should be willing to talk directly with the North, and even begin the process of diplomatic recognition, to help advance the process.

But such an approach has, at best, a limited likelihood of success. The U.S. should back its diplomatic strategy with the threat of continuing proliferation. Both North Korea and especially China will share in the nightmare of the North's development of nuclear weapons. The results will be unpredictable and the endpoint uncertain. But Pyongyang can find itself surrounded by hostile nuclear states, while China can see its greatest fears realized with Japan and Taiwan pursuing a nuclear course.

The objective, obviously, would not be to promote proliferation, but to use the threat of proliferation to halt North Korea's program. This approach, too, might fail. At the moment, however, the international community has few good options regarding the North.

Conclusion

The DPRK's nuclear program threatens the interests of North Korea's neighbors as well as of the U.S. Indeed, the consequences that could likely flow from the North's acquisition of nuclear weapons—war and proliferation—will threaten greater damage to countries in the region more than to America. The cost of failing to reach a diplomatic settlement will be enormous. Yet, as one U.S. official has complained, Washington faces only an array of "familiar bad choices."[93]

The issue is likely to be resolved peacefully only if Washington commits itself to bilateral as well as multilateral talks with Pyongyang (they complement each other) and fully involves other nations in the negotiating process. If the U.S. could accept India as a nuclear power, reward Libya for yielding its nascent program, and allow the Europeans to craft a benefit package for Iran if it drops uranium enrichment, then Washington can talk to the DPRK.

But American engagement may not be enough. The PRC could play a particularly important role in dissuading the North from its nuclear course. Indeed, H.D.S. Greenway of the *Boston Globe* has advocated building on "the new climate of U.S.-Chinese cooperation of late."[94] Such a strategy would offer at least one additional benefit. Working together to defuse the North Korean nuclear crisis successfully would make it easier to resolve other disputes between Washington and Beijing, thereby laying the groundwork for a wide-ranging partnership in the years and decades ahead. Nevertheless, the most important and immediate goal remains halting nuclear proliferation in Northeast Asia.

Notes

[1] Doug Bandow is a Senior Fellow at the Cato Institute and the author and editor of several books, including *Tripwire: Korea and U.S. Foreign Policy in a Changed World* (Cato Institute) and co-author of *The Korean Conundrum: America's Troubled Relations with North and South Korea* (Palgrave/Macmillan). He is a former Special Assistant to President Ronald Reagan.

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[5] Donald Gregg and Don Oberdorfer, "A Moment to Seize With North Korea," *Washington Post*, June 22, 2005, p. A21.

[6] Carpenter and Bandow, pp. 58-67.

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[13] Kang, "US Policy to North Korea and the Relationship Between South and North Korea," p. 6.

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[18] Zhang; Antoaneta Bezlova, "China: Pyongyang Just Wants Attention," *Asia Times*, June 11, 2009, www.atimes.com; "China Calls for 'Balanced' UN Resolution on N. Korea," Agence France-Presse, June 11, 2009.

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http://edition.cnn.com/2006/WORLD/asiapcf/07/09/us.nkorea.ap/index.html.

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[23] Quoted in "U.S. Urges China: Pressure North Korea."

[24] Robert Joseph, "How to Deal With a Dictator," *Wall Street Journal*, June 6, 2009, http://online.wsj.com.

[25] Auslin.

[26] Wu, "What China Whispers to North Korea," pp. 37-38. The view that virtually any expansion of the nuclear club, especially involving the DPRK, would almost inexorably lead the North's neighbors to go nuclear is common. See, e.g., Henry A.

Kissinger, "A Nuclear Test for Diplomacy," *Washington Post*, May 16, 2006, p. A17; Demetri Sevastopulo and Guy Dinmore, "McNamara Hits at 'Very Dangerous' US Policy on Iran and N Korea," *Financial Times*, June 28, 2005, p. 2; Walter Russell Mead, "Should Nukes Bloom in Asia?", Policy Forum Online 05-52A, June 23, 2005, www.nautilus.org/fora/security/0552 Mead.html.

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U.S. Assistance to North Korea

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ABSTRACT

For over a decade, North Korea has suffered from chronic, massive food deficits. Foreign assistance—largely from China, the United States, and South Korea—has been essential in filling the gap. Throughout 2008, United Nations officials issued increasingly urgent calls for international donations of food to avert a "serious tragedy" in North Korea, as hunger has deepened and expanded. In May 2008, the Bush administration announced it would resume food assistance to North Korea by providing 500,000 metric tons (MT) of food, 80% of which is to be channeled through the United Nations World Food Programme (WFP). The rest is to be sent through a consortium of non-governmental organizations.

However, as of mid-December 2008, the WFP portion of the program had been virtually suspended due to differences between the U.S. and North Korean governments over implementing the agreement.

The Bush administration resumed energy aid in the fall of 2007, after progress was made in the six-party talks over North Korea's nuclear program. The six-party talks involve North Korea, the United States, China, South Korea, Japan, and Russia. The United States and other countries began providing heavy fuel oil (HFO) in return for Pyongyang's freezing and disabling its plutonium-based nuclear facilities in Yongbyon. By the second week of December 2008, the United States had provided all of the 200,000 MT of HFO it had promised under this "Phase Two" of the Six-Party Talk process. The talks themselves came to a standstill in December over disagreement on verification procedures.

Key Words: US Food Aid, US Energy Aid, World Food Programme (WFP), Denuclearization of North Korea.

[1] "The views expressed are those of the authors and do not necessarily represent those of the Congressional Research Service, the Library of Congress, or the U.S. Congress."

Introduction

For four decades after the end of the Korean War in 1953, U.S. strategy toward the Democratic People's Republic of Korea (DPRK, commonly referred to as North Korea) was relatively simple: deter an attack on South Korea. This included a freeze on virtually all forms of economic contact between the United States and North Korea in an attempt to weaken and delegitimize the North Korean government. In the 1990's, two developments led the United States to rethink its relationship with the DPRK: North Korea's progress in its nuclear weapons and missile programs and massive, chronic food shortages there. In response, the United States in 1995 began providing the DPRK with foreign assistance, which has totaled over $1.2 billion. This aid has consisted of energy assistance, food aid, and a small amount of medical supplies. (See Table 1.)[1]

U.S. aid fell significantly in the mid-2000s, bottoming out at zero in FY 2006. The Bush administration halted energy assistance in the fall of 2002, following North Korea's reported admission that it had secretly been developing a uranium-based nuclear program. This energy assistance, which primarily took the form of heavy fuel oil, was channeled through the Korean Peninsula Energy Development Organization (KEDO). After a decade of being one of the largest providers of food aid to North Korea, the United States gave no food aid in FY 2006 or 2007, in large part due to new restrictions that the North Korean government imposed upon humanitarian agencies.

The Bush administration resumed assistance to North Korea in 2007. In July of that year, after initial progress in the six-party talks over North Korea's nuclear programs, the United States and other countries began providing heavy fuel oil (HFO) in return for Pyongyang's freezing and disabling its plutonium-based nuclear facilities in Yongbyon.[2] Then, in May 2008, the Bush administration announced it would resume food assistance to North Korea by providing 500,000 metric tons (MT) of food. The United States also provided technical assistance to North Korea to help in the nuclear disabling processes, and is expected to continue to provide assistance for nuclear dismantlement, should that be undertaken.

Aid to North Korea has been controversial since its inception, and the controversy is intricately linked to the overall debate in the United States, South Korea, and other countries over the best strategy for dealing with the DPRK. North Korea is deemed a threat to U.S. interests because it possesses advanced nuclear and missile programs, has a history of proliferating missiles, may have exported its nuclear technology, is suspected of possessing chemical and biological weapons

programs, and has large (albeit deteriorating) conventional forces on the border with South Korea, a key U.S. ally. Instability inside North Korea could spill over into China, South Korea, and possibly Japan and/or Russia. Additionally, Pyongyang also is characterized as one of the world's worst violators of human rights and religious freedom, a record that some members of Congress and interest groups say should assume greater importance in the formation of U.S. priorities toward North Korea.

Table 1. U.S. Assistance to North Korea, 1995-2008

Calendar or Fiscal Year (FY)	Food Aid (per FY)		KEDO Assistance (per calendar yr; $ million)	6-Party Talks-Related Assistance (per FY; $million)		Medical Supplies & Other (per FY; $ million)	Total ($ million)
	Metric Tons	Commodity Value ($ million)		Fuel Oil	Nuclear Disablement		
1995	0	$0.00	$9.50	---	---	$0.20	**$9.70**
1996	19,500	$8.30	$22.00	---	---	$0.00	**$30.30**
1997	177,000	$52.40	$25.00	---	---	$0.00	**$82.40**
1998	200,000	$72.90	$50.00	---	---	$0.00	**$122.90**
1999	695,194	$222.10	$65.10	---	---	$0.00	**$287.20**
2000	265,000	$74.30	$64.40	---	---	$0.00	**$138.70**
2001	350,000	$58.07	$74.90	---	---	$0.00	**$132.97**
2002	207,000	$50.40	$90.50	---	---	$0.00	**$140.90**
2003	40,200	$25.48	$2.30	---	---	$0.00	**$27.28**
2004	110,000	$36.30	$0.00	---	---	$0.10	**$36.40**
2005	25,000	$5.70	---	---	---	---	**$5.70**
2006	0	$0.00	---	---	---	$0.00	**$0.00**
2007	0	$0.00	---	$25.00	$20.00	$0.00	**$45.00**
2008	158,000	$95.30	---	$106.00	---	$0.10	**$201.30**
2009	21,000[a]	n.a.[a]	---	$15.00	---	$4.00	**$19.00**
Total	**2,267,894**	**$701.25**	**$403.70**	**$146.00**	**$20.00**	**$9.40**	**$1,280.35**

Sources: Compiled by CRS from USAID; US Department of Agriculture; State Department; KEDO (Korean Peninsula Energy Development Organization)

a. As of December 3, 2008. 342,000MT is expected to be procured and sent to North Korea in FY2009, at an estimated cost of $185.5 million.

Congress' Role in U.S. Assistance to North Korea

Congress and Energy Assistance

Aid to North Korea has given Congress a vehicle to influence U.S. policy toward the DPRK. From 1998 until the United States halted funding for KEDO in FY2003, Congress included in each Foreign Operations Appropriation requirements a provision that the President certify progress in nuclear and missile negotiations with North Korea before allocating money to KEDO operations.[3] To support the six-party talks, Congress provided funds for energy assistance in the FY2008 Supplemental Appropriations Act (P.L. 110-252). Also in this bill, Congress gave authority to the executive branch to waive Arms Export Control Act sanctions on Pyongyang. Congress also encouraged continued funding for the denuclearization of North Korea, for example in the FY2008 Defense Authorization Act (see "Denuclearization Assistance" section below). Although this waiver has not yet been issued by the President, potential inclusion of budget items for denuclearization in North Korea as part of a future Department of Energy budget proposal could be an indicator of the Obama administration's intent to exercise this authority.

Congress and Food Assistance

With regard to food aid, some members have supported continued donations on humanitarian grounds of helping the North Korean people, regardless of the actions of the North Korean regime. Others have voiced their outright opposition to food aid to the DPRK, or have called for food assistance to be conditioned upon North Korean cooperation on monitoring and access. The congressional debate over food assistance to North Korea also has been colored by the competing demands for other emergency situations that have stretched U.S. food aid funds and commodities. The North Korean Human Rights Act (P.L. 108-333) included non-binding language calling for "significant increases" above current levels of U.S. support for humanitarian assistance to be conditioned upon "substantial improvements" in transparency, monitoring, and access. The re-authorized act (P.L. 110-346) does not include this language, and drops the extensive discussion of humanitarian assistance that was included in P.L. 108-333. Both the original and the re-authorized acts require annual reports to Congress on U.S. humanitarian assistance to North Korea.[4]

Congress' ability to determine the amounts, manner, and recipients of food aid is relatively limited. The 500,000 MT of food that the U.S. pledged to North Korea in May 2008 was to come from the Bill Emerson Humanitarian Trust, a reserve of commodities and cash that is intended

to provide food aid when other statutory sources of aid are unavailable. The Secretary of Agriculture has authority to release up to 500,000 metric tons of eligible commodities for urgent humanitarian relief. Historically, P.L. 480 has been the main vehicle for providing U.S. agricultural commodities as food aid overseas, and from FY2003-FY2005 was the program that funded nearly all of the U.S. food commitments to North Korea. When commodities or cash are released from the Emerson Trust, they are provided under the authority of P.L. 480 Title II. The Emerson Trust statute essentially authorizes the use of commodities or cash in the Trust to be used as a backup to Title II when there are unanticipated humanitarian needs. Congress directly appropriates P.L. 480 aid, and therefore could, although it rarely does, direct how the food should or should not be disbursed.[5]

Energy Assistance:

Korean Peninsula Energy Development Organization (KEDO)

From 1995 to 2002, the United States provided over $400 million in energy assistance to North Korea under the terms of the U.S.-North Korean 1994 Agreed Framework, in which the DPRK agreed to halt its existing plutonium-based nuclear program in exchange for energy aid from the United States and other countries.[6] After Washington and Pyongyang reached their agreement, the United States, Japan, and the Republic of Korea formed an international consortium, the Korean Peninsula Energy Development Organization (KEDO) to manage the assistance.[7] The planned aid consisted of the construction of two light-water nuclear reactors (LWRs) and the provision of 500,000 metric tons of heavy fuel oil annually while the reactors were being built. The two turn-key light-water reactors were to replace the DPRK's graphite-moderated reactors that were shut down under the agreement. The LWR plants would have had a generating capacity of approximately 1,000 MW(e) each and were to be constructed by 2003.[8] The United States' contributions covered only heavy fuel oil shipments and KEDO administrative costs.

In October 2002, KEDO board members decided to halt fuel oil shipments following a dispute over North Korea's alleged clandestine uranium enrichment program. In December, North Korea expelled inspectors from its Yongbyon nuclear site, withdrew from the Nuclear Nonproliferation Treaty (NPT), and resumed operations at Yongbyon. The Bush administration thereafter sought to end the KEDO program.[9] In 2003 and 2004, KEDO's Executive Board (the United States, South Korea, Japan, and the European Union) decided to suspend construction on the LWRs for one-year periods. In the fall of 2005, the KEDO

program was formally terminated. In January 2006, the last foreign KEDO workers left the LWR construction site at Kumho, North Korea.

Assistance Related to the Six-Party Talks

As with KEDO, the Bush administration and other members of the six-party talks have promised energy assistance to North Korea as an inducement to end its nuclear program. In January 2003, President Bush said that he would consider offering the DPRK a "bold initiative" including energy and agricultural development aid if the country first verifiably dismantled its nuclear program and satisfied other U.S. security concerns.[10] The six-party process began with talks in August 2003.[11] In June 2004, the United States offered a proposal that envisioned a freeze of North Korea's weapons program, followed by a series of measures to ensure complete dismantlement and eventually a permanent security guarantee, negotiations to resolve North Korea's energy problems, and discussions on normalizing U.S.-North Korean relations that would include lifting the remaining U.S. sanctions and removing North Korea from the list of terrorist-supporting countries.[12]

In September 2005, the six parties issued a joint statement agreeing to "promote economic cooperation in the fields of energy, trade and investment, bilaterally and/or multilaterally." The United States, China, South Korea, Japan, and Russia also stated their "willingness to provide energy assistance to the DPRK." The agreement said that the parties would discuss the provision of a light water nuclear power reactor to North Korea "at the appropriate time." This document served as the foundations for subsequent agreements.[13]

North Korea tested a nuclear device in October 2006, resulting in the swift passage of U.N. Security Council Resolution 1718, which imposed international sanctions banning the trade of military goods, WMD and missile-related goods, and luxury items to North Korea.[14] In the six-party talks held in December 2006, as well as in meetings held earlier that month with North Korean negotiators, U.S. officials reportedly spelled out a detailed package of humanitarian, economic, and energy aid that would be available to Pyongyang if it gave up nuclear weapons and technology.[15]

The resulting Denuclearization Action Plan of February 2007 called for a first phase to include the shut-down of key nuclear facilities and initial provision of 50,000 metric tons of heavy fuel oil to North Korea. In the second-phase, the parties agreed to provide North Korea with "economic, energy and humanitarian assistance up to the equivalent of one million tons of heavy fuel oil, including the initial shipment of 50,000 tons of heavy oil." Concurrently, North Korea promised to provide a declaration of its nuclear programs and to disable its nuclear

facilities at Yongbyon. A future Phase Three envisioned under the agreement involved assistance for the permanent dismantlement of North Korea's nuclear facilities, the removal of spent fuel rods from the country, and eventual dismantlement of its weapons and weapon sites as part of the 'denuclearization.'

Heavy Fuel Oil Shipments

The shipments of fuel oil or equivalent (i.e., steel products to renovate aging power plants) assistance were to happen on an 'action for action' basis, as North Korea made progress on the second phase steps (nuclear disablement at Yongbyon and declaration of nuclear facilities and activities). An October 2007 joint statement on "Second-Phase Actions" confirmed these commitments.[16] The shipments of one million tons (MT) of heavy fuel oil or equivalent were to be divided equally by the five parties—i.e., 200,000 MT each. As of December 2008, the DPRK had received 450,000 MT of heavy fuel oil and equipment and 147,000 MT of fuel equivalent assistance. Of this, the United States had contributed its promised share of 200,000 MT of heavy fuel oil. Russia shipped its third shipment in mid-December 2008, and has provided a total of 150,000 MT of HFO to date. A fourth shipment to fulfill its commitment was to follow "in a few months," according to the Russian six-party negotiator.[17] China and South Korea each contributed 50,000 MT of heavy fuel oil. The remainder of China and South Korea's contribution is to be fuel oil equivalent.

South Korea provided the initial shipment of 50,000 metric tons of heavy fuel oil in July 2007 under Phase One of the February 2007 six-party agreement. Subsequently, South Korea delivered assistance worth 124,000 metric tons of HFO according to press reports.[18]

Japan said it would not provide its share of energy assistance to Pyongyang until North Korea had satisfactorily resolved the issue of Japanese citizens abducted by North Korea.[19] However, press reports have said that the United States was arranging for other countries such as Australia, New Zealand and European states to provide the HFO aid in its stead. Australia and New Zealand each reportedly agreed to donate $10 million, approximately equal to 30,000 metric tons of heavy fuel oil.[20] Japan may instead contribute the equivalent of 200,000 metric tons of HFO (approximately 16 billion yen or $164 million) as technical assistance related to North Korea's nuclear dismantlement.[21]

Table 2. Delivery of Heavy Fuel Oil to the DPRK, July 2007 – December 2008

Shipment Date	Donor Country	Amount HFO Delivered (MT)
July 2007	ROK	50,000
September 2007	China	50,000
November 2007	USA	46,000
January 2008	Russia	50,000
March 2008	USA	54,000
May 2008	Russia	50,000
July 2008	USA	34,000
August 2008	USA	16,000
November 2008	USA	50,000
December 2008	Russia	50,000
TOTAL		**450,000**

Source: Compiled by the Congressional Research Service.

North Korea has said it would predicate its actions on disablement on the pace of energy assistance shipments. Pyongyang several times slowed down removal of the spent fuel rods at Yongbyon, saying, for example, in June 2008 that while 80% of the disablement steps had been completed, only 36% of the energy aid had been delivered. [22] Responding to this, the five parties agreed in July to work out a binding agreement for the provision of their remaining share of non-HFO assistance by the end of October 2008, but this was delayed.[23] North Korea again delayed disablement work in August, September, and October, although those instances appear to have been linked to disputes over when the U.S. would remove the DPRK from its State Sponsors of Terrorism List and negotiations over verification measures.

The United States delayed its fuel shipments while these issues were being negotiated. After an informal agreement on verification had been reached bilaterally, the United States removed North Korea from the SST List and resumed HFO shipments.[24] However, Pyongyang in November 2008 denied having agreed to the verification measures the United States sought, and once again slowed disablement work, saying that energy shipments were not proceeding as planned. [25] The United States

announced its fourth shipment of 50,000 metric tons HFO on November 12.

The six parties met on December 8 to discuss verification issues, and were also expected to finalize a schedule for future HFO shipments and disablement steps. Since no agreement was reached on verification measures at the December meeting, no HFO delivery schedule was set. However, some announcements followed on provision of energy assistance. China announced it would deliver 99,000 tons of HFO equivalent by the end of January 2009 to complete its promised share of assistance.[26] As stated above, Russia announced its plans to go forward with remaining HFO assistance, and the United States had already completed its share in November.

However, State Department spokespersons said that future HFO shipments from other countries would not be sent because North Korea had not agreed to verification measures.[27] This does not appear to have been coordinated or agreed to by the other parties. Russia and China, for example, appear to have linked the provision of energy assistance with progress on Yongbyon disablement, not with progress on verification. South Korea, on the other hand, reviewed its shipment of 3,000 tons of steel plate for delivery to North Korean power stations in December in light of lack of progress on disablement and other matters.[28] The North Korea negotiator responded by saying that disablement would be slowed if fuel shipments were not forthcoming.[29] South Korea, as chair of the six-party Energy and Economy Cooperation Working Group, is charged with coordinating the provision of energy assistance going forward.

Heavy fuel oil provided by the United States was paid for through the FY008 Supplemental Appropriations Act (P.L. 110-252), passed in May 2008. The FY2008 supplemental allocated $53 million for energy assistance to North Korea in support of the six-party talks, "after the Secretary of State determines and reports to the Committees on Appropriations that North Korea is continuing to fulfill its commitments under such agreements," and notwithstanding any other provision of law. The Supplemental also gives authority for an additional $15 million of energy-related assistance for North Korea, under the State Department's Economic Support Fund.

Denuclearization Assistance

As part of Phase Two under the six-party agreements, the Departments of State and Energy worked to disable the nuclear facilities at the Yongbyon complex in North Korea.[30] This effort was funded through the State Department's Nonproliferation and Disarmament Fund (NDF). The State Department paid the North Korean government for the labor costs of disablement activities, and also for related equipment and

fuel. Approximately $20 million has been approved for this purpose to date, NDF funds may be used "notwithstanding any other provision of law" and therefore may be used to pay North Korea. DOE"s National Nuclear Security Administration (NNSA) has been contributing its personnel as technical advisors to the U.S. six-party delegation and as technical teams on the ground at Yongbyon overseeing the disablement measures. NNSA has estimated it has spent approximately $15 million in support of Phase Two (Yongbyon disablement) implementation.[31]

North Korea's nuclear test triggered sanctions under Section 102 (b) (the "Glenn Amendment" 22 *U.S.C. 2799aa-1*) of the Arms Export control Act, which prohibits assistance to a non-nuclear weapon state under the NPT that has detonated a nuclear explosive device. Given this restriction, DOE funds cannot be spent in North Korea without a waiver. Congress passed language in the FY2008 Supplemental Appropriations Act (P.L. 110-252) that would allow the President to waive the Glenn Amendment restrictions and that stipulates that funds may only be used for the purpose of eliminating North Korea's WMD and missile-related programs.[32] If the President does exercise the Glenn Amendment waiver authority, then DOE "will be able to procure, ship to North Korea, and use equipment required to support the full range of disablement, dismantlement, verification, and material packaging and removal activities that Phase Three will likely entail."[33] NNSA has estimated that this could cost over $360 million in FY2009 if verification proceeds and North Korea agrees to the packaging and disposition of separated plutonium and spent fuel at Yongbyon. The Congressional Budget Office estimated that nuclear dismantlement in North Korea would cost approximately $55 million and take about four years to complete.[34]

Department of Defense funds must be specifically appropriated for use in North Korea. Section 8045 of the FY2008 Defense Appropriations Act (P.L. 110-116) says that "none of the funds appropriated or otherwise made available in this act may be obligated or expended for assistance to the Democratic People's Republic of Korea unless specifically appropriated for that purpose." Section 8044 of the FY2009 Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329) also contains this language. However, authorization was given for Department of Defense's Cooperative Threat Reduction (CTR) funds to be used globally in the FY2008 Defense Authorization Act (P.L. 110-181, see Section 1305) and expressly encourages "activities relating to the denuclearization of the Democratic People's Republic of Korea" as a potential new initiative for CTR work. Senator Richard Lugar has proposed that the CTR program be granted "notwithstanding authority"[35] for this work since the Defense

Department's experience in the former Soviet Union, expertise and resources could make it well-positioned to conduct threat reduction work in North Korea and elsewhere.

The United States has provided $1.8 million to the IAEA to support its monitoring activities at Yongbyon. Japan has provided the agency with $500,000 for this purpose.[36] The European Union contributed approximately $2.2 million (1.78 million euros) to the IAEA for Yongbyon shut-down monitoring.

Food Assistance

Since 1996, the United States has sent over 2.2 million metric tons (MT) of food assistance, worth nearly $800 million, to help North Korea alleviate chronic, massive food shortages that began in the early 1990s. A severe famine in the mid-1990s killed an estimated 600,000 to three million North Koreans.[37] Over 90% of U.S. food assistance to Pyongyang has been channeled through the U.N. World Food Programme (WFP), which has sent over 4.2 million MT of food—an amount that includes U.S. contributions—to the DPRK since 1996. The United States has been by far the largest cumulative contributor to the WFP's North Korea appeals. The second largest donor of food aid has been South Korea. As discussed below, North Korea's largest sources of food assistance have come from bilateral donations (i.e., those not channeled through the WFP) from China and South Korea.

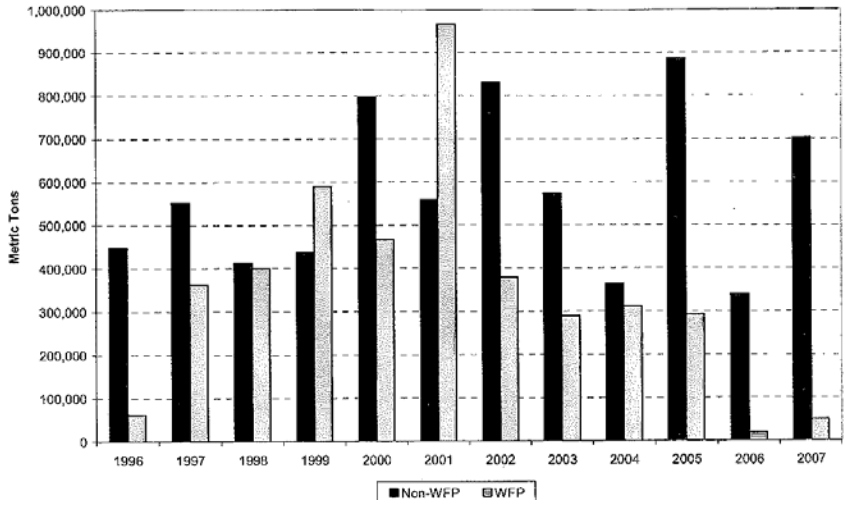
U.S. Food Aid Policy

U.S. official policy in recent times has de-linked food and humanitarian aid from strategic interests, including the six-party talks. Since June 2002, the Bush administration officially linked the level of U.S. food aid to three factors: the need in North Korea, competing needs for U.S. food assistance, and "verifiable progress" in North Korea, allowing the humanitarian community improved access and monitoring.[38] In practice, some argue that the timing for U.S. pledges sometimes appears to be motivated also by a desire to influence talks over North Kroea's nuclear program, and that the linkage between U.S. donations and improvements in North Korea's cooperation with the WFP occasionally has been tenuous.[39]

There is conflicting evidence on this front. For instance, in February 2003, the Bush administration announced it would provide 40,000 MT of food and would make an additional 60,000 MT contingent upon the DPRK's allowing greater access and monitoring. In December 2003, the administration announced that it would donate the additional 60,000 MT because of the continued poor humanitarian situation in North Korea and improvements in North Korea's cooperation with the WFP. Those

improvements, however, were widely thought to be marginal. Administration officials denied the decisions were motivated by a desire to influence the six-party talks on North Korea's nuclear programs, which at the time had reached an impasse. On the other hand, in late 2005, despite another impasse in the six-party talks, the United States halted its food aid shipments in response to North Korea's tightening of restrictions on the WFP's operations. The cessation included the second half of a 50,000 MT pledge that the United States had made in June 2005.

Figure 1. Food Aid to North Korea, WFP and Non-WFP



WFP Assistance

As shown in **Figure 1**, after peaking at over 900,000 MT in 2001, assistance provided by the WFP fell dramatically. There were two primary reasons for the decline in WFP assistance. The first was "donor fatigue," as contributing nations objected to the North Korean government's continued development of its nuclear and missile programs as well as tightened restrictions on the ability of donor agencies to monitor food shipments to ensure that food is received by the neediest. The emergence of other emergency food situations around the globe also has stretched the food aid resources of the United States and other donors. Whatever the causes, the WFP was unable to fill its goal of 150,000 MT for the 2006-2008 period. During this time, increased bilateral assistance—outside the WFP's program—that China and South Korea shipped directly to North Korea, as well as improved harvests in North

Korea, appear to have made up much of the gap, which generally is estimated to be in the range of one million MT per year.

Diversion, Triage, and North Korea's "Aid-Seeking" Behavior

Various sources assert that some—perhaps substantial amounts—of the food assistance going to North Korea is routinely diverted for resale in private markets or other uses.[40] Although there has been much public concern about diversion to the North Korean military, WFP officials and other experts have said they have seen little to no evidence that the military is systemically diverting U.N. food donations, and, further, that the North Korean military has no need for WFP food, since it receives the first cut of North Korea's national harvest. Even if the military is not directly siphoning off food aid, however, such assistance is fungible; funds that otherwise would have been spent on food can be spent on other items, such as the military.

The North Korean government's desire to maintain control over the country is inextricably linked to the food crisis and its chronic reliance on food aid. Residency in North Korea is tightly controlled and highly politicized, with the elite permitted to live in or around Pyongyang, where food shortages are less acute than in the country's more remote areas, where politically less desirable families live. For this reason, the United States generally has shipped its food aid to the northern provinces. Additionally, North Korea is believed to expend little of its foreign currency to import food, relying instead upon the international community. Moreover, since 2007, the government has taken many steps to reimpose state controls over farmers and markets.[41]

2006 Restrictions

In 2006 the WFP drastically scaled down its program after the North Korean government imposed new restrictions on the WFP, constraining the organization's size and ability to distribute and monitor its shipments. The WFP and Pyongyang then negotiated a new agreement that would feed 1.9 million people, less than a third of the 6.4 million people the WFP previously had targeted. North Korea's total population is approximately 22 million. In the deal, the WFP expatriate staff was cut by 75%, to 10 people, all of whom were based in Pyongyang. Before 2006, the WFP had over 40 expatriate staff and six offices around the country, conducting thousands of monitoring trips every year.[42] The North Korean government did not allow any Korean speakers to serve on the WFP's in-country staff.

The Easing of Restrictions in 2008

In 2008, the WFP warned that food shortages and hunger had worsened to levels not seen since the late 1990s. Not only was the country confronting the results of decades of poor agricultural planning and large-scale floods in 2007, but also shipments declined significantly from the two largest bilateral food providers, China and South Korea. According to the WFP, as of the end of June 2008, bilateral food imports and aid totaled 110,000 MT, compared to 738,000 MT for the same period in 2007.[43] In April 2008, the WFP agency issued a call for more international donations and for the North Korean government to relax its restrictions on donor activities.[44]

The following month, the United States Agency for International Development announced that the United States would resume food assistance to North Korea providing 500,000 MT for one year beginning in June 2008. Of this amount, 400,000 MT is to be channeled through the WFP. Approximately 100,000 tons would be funneled through non-governmental organizations (NGOs), including World Vision, Mercy Corps, Samaritan's Purse, Global Resource Services and Christian Friends of Korea. The announcement stated that the resumption was made possible by an agreement reached with Pyongyang that allowed for "substantial improvement in monitoring and access in order to allow for confirmation of receipt by the intended recipients."[45] The U.S. move came not long after a breakthrough was reached in the six-party talks. Bush administration officials repeatedly stated their policy that decisions on food assistance were unrelated to the nuclear negotiations.

On June 27, 2008, an agreement was signed with Pyongyang that stipulated terms for increased WFP personnel and access for monitoring the delivery of the food aid. It allowed WFP to expand its operations into 131 countries, versus an earlier 50, in regions at particular risk of famine.[46] NGOs have access to an additional 25 counties (see **Table 3**.) In 2005, the WFP had access to 158 of 203 counties and districts, representing approximately 83% of the population.[47] The agreement allowed the WFP to issue a new emergency appeal for over 600,000 MT for 6.2 million North Koreans. The agreement also expanded the WFP's rights and ability to monitor the shipments of food aid, in order to better ensure that the food was not diverted from its target recipients.

The NGO portion of the distribution is to be done in the two northwestern provinces of Chagang and North Pyongan. The NGO partnership, which has a staff of 16 people based in North Korea, plans to reach 895,000 people.[48]

Table 3. Comparing Past and Present WFP Food Aid Agreements with North Korea

	Tons of Food pledged/ planned	Number of People Targeted	Counties Accessed (% of Total Population)	Permanent Staff	Korean Speakers Allowed
2005 WFP	504,000 MT	6.4 million	158	40	No
2006-08 WFP	150,000 MT	1.9 million	50	10	No
2008 Total	730,000 MT	7.1 million	156	75	Yes
- of which:					
- WFP	*630,000 MT*	*6.2 million*	*131*	*59*	*Yes*
- U.S. NGOs	*100,000 MT*	*0.9 million*	*25*	*16*	*Yes*

Sources: WFP and NGO press releases; CRS interviews with aid officials.

Developments in Late 2008

Since the late summer of 2008, operating conditions for the WFP appear to have worsened. The North Korean government reportedly has not allowed the U.N. agency to implement parts of its WFP agreement. In particular, the Bush administration had disagreements with Pyongyang over the number of Korean speakers and Americans allowed in the country. In part because of those difficulties, the United States did not send a shipment of food to the WFP's North Korea appeal after August. In remarks reported in the *Washington Post*, WFP Asia director Tony Banbury said that North Koreans "were fulfilling their obligations," but that the WFP's North Korea program was running short of food. The NGO program reportedly continued to operate smoothly.[49]

Meanwhile, in December 2008, the WFP and U.N. Food and Agriculture Organization (FAO) issued a report summarizing a food security survey taken in October. The agencies estimated that the number of "hungry" had jumped from 6.2 million to 8.7 million, more than a third of North Korea's population.[50]

Chinese and South Korean Bilateral Food Assistance

China is widely believed to be North Korea's single-largest cumulative provider of food (and energy). All Chinese food shipments are given bilaterally, that is, directly to the North Korean government. It is believed that China does not have any systems for monitoring its food shipments to North Korea. As mentioned above, Chinese bilateral food shipments reportedly were down significantly in the first half of 2008.

For much of the past decade, South Korea's yearly shipments of food made it North Korea's largest or second-largest annual provider. Most of this was provided bilaterally, and South Korea had few monitoring systems in place. Seoul also provided 300,000 MT in fertilizer every year. However, in 2008, South Korea sent no food or fertilizer to North Korea. Earlier in the year, the newly inaugurated government of Lee Myung-bak indicated that it would provide humanitarian aid upon North Korea's request (the previous government had simply offered the assistance). The move coincided with the Lee government's announcement that new forms of North-South cooperation would be conditioned upon progress in denuclearizing North Korea. In response to the new policy from Seoul, North Korea did not request humanitarian assistance from the South.

Other Forms of Assistance

In 2008, the Bush administration allocated $4 million in assistance to U.S. NGOs to help several North Korean rural and provincial hospitals by improving their electrical supplies and by providing medical equipment and training. The four recipient NGOs were Mercy Corps, The Eugene Bell Foundation, Global Resource Services, and Samaritan's Purse.[51]

During the Bush administration, various officials, including the President, issued vague pledges of more extensive U.S. assistance that might be forthcoming if North Korea dismantled its nuclear programs and satisfied other U.S. security concerns dealing with missiles and the deployment of conventional forces.[52] The administration reportedly was preparing to offer a version of this "bold initiative" to North Korea in the summer of 2002, but pulled it back after acquiring more details of Pyongyang's clandestine uranium nuclear weapons program.[53] Similarly, South Korean President Lee Myung-bak adopted a "3000 Policy, in 2008," whereby South Korea would help North Korea raise its per capita income to $3,000 over the next ten years by providing a massive aid package if North Korea dismantled its nuclear program.

With regard to U.S. development assistance programs, in the near term, the President has considerable flexibility to offer some forms of development assistance. The Foreign Assistance Act of 1961, for instance, allows the President annually to provide up to $50 million per country for any purpose.[54] Longer-term initiatives, however, would likely require changes in U.S. law and thereby require congressional action. For instance, the FY2005 Consolidated Appropriations Act specifically banned many forms of direct aid to North Korea, along with several other countries.[55] Many health and emergency disaster relief aid programs were exempted from such legislative restrictions because they

have "notwithstanding" clauses in their enacting legislation. Additionally, if the Administration were to designate North Korea as a country involved in drug production and trafficking—as some have advocated—then by law North Korea would be ineligible for receiving most forms of U.S. development assistance.[56]

Notes:

[1] From 1995-2002, the energy assistance was provided through the Korean Peninsula Energy Development Organization (KEDO), the multinational group established to provide energy aid to North Korea in exchange for Pyongyang's shutdown of its existing plutonium-based nuclear program.

[2] The six–party talks involve North Korea, the United States, China, South Korea, Japan, and Russia.

[3] President Clinton was responding to Section 582(3) of P.L. 105-277, the Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999. In response, Section 1211 of the John Warner National Defense Authorization Act for Fiscal Year 2007 (P.L. 109-364; 120 Stat. 2420) required the Bush administration to appoint a special envoy for North Korea. Christopher Hill, the Assistant Secretary for East Asian and Pacific Affairs, was named to the post.

[4] See CRS Report RS22973, *Congress and U.S. Policy on North Korean Human Rights and Refugees: Recent Legislation and Implementation*, by Emma Chanlett-Avery.

[5] P.L. 480 (originally P.L. 83-480) was reauthorized most recently by the 2008 farm bill (P.L. 110-246, 7 USC 1691).

[6] See "Total Financial Support by Country: March 1995 to December 2005," Table B, Appendix 1, KEDO 2005 Annual Report. http://www.kedo.org/pdfs/KEDO_AR_2005.pdf.

[7] Membership in KEDO expanded to include additional states and international organizations that contributed funds, goods or services: Argentina, Australia, Canada, Chile, the Czech Republic, the European Union (as an executive board member), Indonesia, New Zealand, Poland, and Uzbekistan. KEDO also received material and financial support from nineteen other non-member states. Details at http://www.kedo.org/au_history.asp

[8] Full text of the KEDO-DPRK supply agreement at http://www.kedo.org/pdfs/SupplyAgreement.pdf.

[9] State Department Daily Press Briefing by Adam Ereli, Deputy Spokesman, November 5, 2003.

[10] The administration reportedly was preparing to offer this plan in 2002, but pulled it back after acquiring more details of Pyongyang's clandestine uranium nuclear weapons program. Testimony of Richard Armitage, State Department

Deputy Secretary, before the Senate Foreign Relations Committee, February 4, 2003. http://www.nti.org/e_research/official_docs/dos/dos020403.pdf.

[11] See CRS Report RL33590, *North Korea's Nuclear Weapons Development and Diplomacy*, by Larry A. Niksch, and CRS Report RL34256, *North Korea's Nuclear Weapons: Latest Developments*, by Mary Beth Nikitin.

[12] See CRS Report RL30613, *North Korea: Terrorism List Removal?*, by Larry A. Niksch.

[13] Joint Statement of the Fourth Round of the Six-Party Talks Beijing, September 19, 2005. http://www.state.gov/r/pa/prs/ps/2005/53490.htm

[14] http://www.un.org/News/Press/docs/2006/sc8853.doc.htm

[15] Helene Cooper and David Sanger, "U.S. Offers North Korea Aid for Dropping Nuclear Plans," *New York Times*, December 6, 2006.

[16] These commitments were reaffirmed in the October 3, 2007 Agreement on "Second-Phase Actions for the Implementation of the Joint Statement." http://www.state.gov/r/pa/prs/ps/2007/oct/93223.htm

[17] "Russia Vows to Fulfill Pledge to Supply Fuel Oil For N. Korea," *Russia & CIS Diplomatic Panorama*, December 12, 2008; "Russia to make N Korea Fuel Shipment," *United Press International*, December 14, 2008.

http://www.upi.com/Top_News/2008/12/14/Russia_to_make_N_Korea_fuel_shipment/UPI-68611229280896/

[18] "Seoul Delivers Energy Aid Under Six Party Deal," Asia Pulse, August 11, 2008.

[19] See CRS Report RS22845, *North Korea's Abduction of Japanese Citizens and the Six-Party Talks*, by Emma Chanlett-Avery.

[20] "Japan mulls funding N. Korea denuclearization, others to give oil aid," Japan Economic Newswire, October 21, 2008.

[21] "Japan may pay cash for North Korea's denuclearization, says report," BBC Monitoring Asia Pacific, October 22, 2008.

[22] Lee Chi-dong, "N Korea Complains About Slow Provision of Energy Aid," Yonhap News, June 5, 2008.

[23] Press Communique of the Heads of Delegation Meeting of the Sixth Round of the Six-Party Talks, Beijing, July 12, 2008. http://www.mofa.go.jp/region/asia-paci/n_korea/6party/press0807.html

[24] http://www.state.gov/r/pa/prs/ps/2008/oct/110922.htm

[25] "N. Korea slows nuclear disablement to snail's pace," *Japan Economic Newswire*, November 8, 2008.

[26] "S Korea Says Energy Aid to N Korea to Continue," *Agence France Presse*, December 15, 2008.

[27] December 12 and 15, 2008 State Department Daily Press Briefings.

[28] "Six Party Confusion," *The Korea Herald*, December 18, 2008.

[29] "N. Korea envoy warns halt in aid would slow disablement work," *Japan Economic Newswire*, December 13, 2008.

[30] Nuclear disablement should be distinguished from nuclear dismantlement, the former referring to a process that could be reversed.

[31] Statement of William H. Tobey, National Nuclear Security Administration, U.S. Department of Energy, to the Senate Committee on Armed Services, July 31, 2008.

[32] Similar language appeared in the Senate version of the FY2009 Duncan Hunter National Defense Authorization Act (P.L. 110-417), but was not included in the House version. The final act includes it under "legislative provisions not adopted" under Title XII, since the waiver authority was passed earlier in the FY2008 Supplemental. See joint explanatory note: http://armedservices.house.gov/pdfs/fy09ndaa/FY09conf/FY2009NDAAJointExplanatoryStatement.pdf.

[33] Tobey testimony, ibid.

[34] The CBO's cost estimate takes into account the dismantling of the reactor and three associated plants at Yongbyon as well as the transport and reprocessing of the spent fuel outside North Korea. Congressional Budget Office, "Cost Estimate: S. 3001 National Defense Authorization Act for Fiscal Year 2009," June 13, 2008. http://www.cbo.gov/ftpdocs/93xx/doc9390/s3001.pdf

[35] So that funds may be used "nothwithstanding any other provision of law." Senator Richard Lugar, Remarks to National Defense University, October 2, 2008. http://lugar.senate.gov/record.cfm?id=304026&&

[36] Christopher R. Hill, Assistant Secretary for Bureau of East Asian and Pacific Affairs, Testimony before House Committee on Foreign Affairs Subcommittee on Asia, the Pacific and the Global Environment and Subcommittee on Terrorism, Nonproliferation, and Trade Washington, DC October 25, 2007.

[37] For a short review of the estimates of the famine's death toll, see Stephan Haggard and Marcus Noland, *Famine in North Korea. Markets, Aid, and Reform*, (New York: Columbia University Press, 2007), pp. 73-76.

[38] USAID Press Release, June 7, 2002.

[39] Andrew S. Natsios, *The Great North Korean Famine*, United States Institute of Peace Press, Washington, DC, 2001, pp. 135, 143-148. Mark Noland, "Avoiding the Apocalypse: The Future of the Two Koreas," Peterson Institute of

International Economics, June 2000, pp. 159, 186, 189. Stephen Haggard, Marcus Noland, and Erik Weeks "Markets and Famine in North Korea," *Global Asia*, Vol. 3, No.2, August 2008.

[40] See, for instance, Stephan Haggard and Marcus Noland, *Hunger and Human Rights: The Politics of Famine in North Korea* (Washington, DC: U.S. Committee for Human Rights in North Korea, 2005), in which the authors argue that up to half of the WFP's aid deliveries did not reach their intended recipients.

[41] Stephen Haggard, Marcus Noland, and Erik Weeks "Markets and Famine in North Korea," *Global Asia*, Vol. 3, No.2, August 2008.

[42] WFP Press Release, "WFP Set to Resume Operations in North Korea," 11 May 2006; undated WFP document, Projected 2007 Needs for WFP Projects and Operations, Korea, DPR.

[43] World Food Programme, "Emergency Operation Democratic People's Republic of Korea: 10757.0- Emergency Assistance to Population Groups Affected by Floods and Rising Food and Fuel Prices," Undated document.

[44] WFP Press Releases: "WFP Warns of Potential Humanitarian Food Crisis in DPRK Following Critically Low Harvest, April 16, 2008; "DPRK Survey Confirms Deepening Hunger for Millions, July 30, 2008.

[45] USAID Press Release, "Resumption of U.S. Food Assistance to the North Korean People," May 16, 2008.

[46] WFP, "Operational Priorities, September 2008, D.P.R. Korea," EMOP 10757.0 – Emergency Assistance to Population Groups Affected by Floods and Rising Food and Fuel Prices.

[47] USAID, *Report on U.S. Humanitarian Assistance to North Koreans*, April 25, 2005; March and April 2005 e-mail exchanges and phone conversations with WFP and USAID.

[48] "Aid Agencies Send Fourth U.S. Food Shipment to North Korea," Mercy Corps and World Vision press release, October 16, 2008.

[49] Blaine Harden and Glenn Kessler, "Dispute Stalls U.S. Food Aid To N. Korea," *Washington Post*, December 9, 2008.

[50] "8.7 Million North Koreans Need Food Assistance," FAO/WFP News Release, December 8, 2008.

[51] "U.S. Spends $4 Million On Medical Aid For N.Korea In 2008," *Korea Herald*, December 21, 2008; December 2008 communication with U.S. State Department.

[52] Testimony of Richard Armitage, State Department Deputy Secretary, before the Senate Foreign Relations Committee, February 4, 2003.

[53] Ibid.

[54] Section 614 of the Foreign Assistance Act of 1961, P.L. 87-195.

[55] Section 607 of P.L. 110-161, the FY2008 Consolidated Appropriations Act, which also bans direct aid to Cuba, Iran, and Syria.

[56] See CRS Report RL32167, *Drug Trafficking and North Korea: Issues for U.S. Policy*, by Raphael F. Perl.

Addressing South Korea's Greatest Strategic Vulnerability: Options for Decreasing Energy Dependency

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ABSTRACT

South Korea is almost entirely dependent on foreign imports for its energy needs. For oil, the country is completely reliant on imports. Korea is actually one of the world's leading petroleum importers, depending on the Middle East for over 80 percent of its imports. This form of dependency, or "super-dependency," presents perilous risks for the country's strategic outlook. In order for Korea to avoid becoming hopelessly marginalized by global petroleum price volatility, increasingly competitive world demand, and associated geopolitical hazards, South Korea must develop a viable strategy to address this strategic vulnerability. This paper explores Korea's energy super-dependency, examines past and present energy policies and mitigating strategies, and assesses whether the current path will effectively put the country on course to reduce risk, overcome its fragility and move forward with a sound energy plan. Finally, options and ideas are proposed for further consideration and evaluation by Korea's energy strategists.

Key Words: Korea, Energy, Strategy, Oil, Petroleum, Import, Vulnerability, Dependency, KNOC, KOGAS, LNG, Lee Myung-bak, Low Carbon, Green Growth

[1] This manuscript represents the views of the author only, and do not constitute the policies, views, or position of the United States Air Force, the United States Government, or Concurrent Technologies Corporation.

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Introduction

Energy is the lifeblood which powers the world's economic and societal engines. It is required to produce and move goods, as well as to support all aspects of daily human activity. Without it, modern societies cannot function. Therefore, a pragmatic country strives to create and shape conditions which favor adequate supplies of affordable energy for its people, businesses and institutions. Unfortunately, the raw materials required to produce energy are not evenly distributed throughout the world. Thus, countries lacking sufficient resources must develop careful plans to seek out and obtain unobstructed access to supplies. In this regard, the Republic of Korea (referred to as 'Korea' from this point forward) is a case in point.

Korea's requirement for energy is large, and it continues to grow. From the machines that power its steel mills through the day to the lights that burn brightly through the night at its multitudinous *hagwon*, Korea needs enormous supplies of uninterrupted energy to provide power for its 48 million people. A constant and ubiquitous flow of energy is required to sustain the country's households, businesses, transit, and particularly, its bountiful industrial output. In fact, most of Korea's daily energy flow is directed to the county's industrial sector, where it feeds a manufacturing wellspring of ships, cars, electronics, and other machines and goods for entry into the global marketplace. Virtually all of the energy produced to support these vital activities can be attributed to a steady stream of imported feedstock. This is because Korea possesses virtually none of the natural resources needed to produce energy in its country. Korea is thus rendered almost entirely dependent on expensive foreign imports for its energy needs, an unenviable position for any country, but particularly unpalatable for one that depends on energy intensive industrial capacity to produce goods for export. This extreme form of dependency, or "super-dependency", is perhaps Korea's greatest strategic vulnerability.

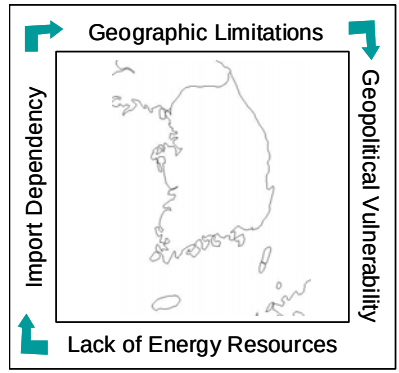
It should be noted at the outset of this article that Korea has successfully adopted measures over the years to enhance and increase its energy security. However, while strides have been made to diversify both foreign suppliers and the mix of natural resources streaming into the country, questions remain as to whether significant progress has been made to address import dependency. Accordingly, Korea is increasingly at risk of being tossed about in a perfect storm composed of volatile petroleum price swings, ballooning global demand for oil, and dangerous geopolitical maneuverings of supplier countries. In order to avoid becoming marginalized, Korea must develop a viable strategy to address its strategic vulnerability of super-dependency. This article will explore

Korea's energy super-dependency, examine past and present policies and strategies intended to mitigate energy vulnerabilities, and determine whether the current strategic trajectory will effectively put the country on course to reduce risk, overcome its fragility and move forward with a sound energy plan.

"Boxed in"

Korea's evolving strategic approach to energy and energy-related policy has been contiguously bounded by four daunting constraints: (1) lack of resources; (2) dependency on imports; (3) geographic limitations; and, (4) vulnerability to geopolitics. These limitations can be viewed as a set of causally-connected conditions, with the foremost being Korea's dearth of natural resources required to produce energy. Lacking the necessary raw materials, Korea is almost totally dependent (super-dependent) on imported energy resources. As such, Korea must reach beyond its borders to secure supplies of energy resources. However, Korea's geographical position on the globe does not make this an easy task. Since countries in close proximity to Korea are not conjoined in a complementary regional energy arrangement, the country must reach well beyond its regional neighbors for sources of supply, relying in large measure on the Middle East and the Organization of the Petroleum Exporting Countries (OPEC). This leaves Korea highly susceptible to geopolitical hazards which can occasionally result in shock and disruption. The aforementioned constraints are bound tightly together, leaving Korea "boxed in" with limited working space to enhance its energy policies and strategies.

Figure 1. "Boxed in"[1]



Lack of Resources

Korea's prevailing energy constraint lies in the materials it lacks to produce the very energy it consumes. In terms of consumption, Korea's primary energy resources are petroleum, coal, uranium, and natural gas.

Petroleum constitutes 43 percent of Korea's total energy consumption. Following petroleum is coal at 24 percent, uranium at 16 percent and natural gas at 14 percent. Roughly 3 percent comes from hydro-electric and other renewable sources. Korea must import all of the oil, uranium, and nearly all the coal and natural gas that it consumes, resulting in a 97 percent dependency rate.[2] The industrial sector soaks up 56 percent of all the energy produced in the country. Korea, a global leader in shipbuilding, semiconductors, digital electronics, and automobiles, was ranked 11th in the world in 2007 for overall trade volume.[3] Energy consumption in the industrial sector is critically needed to fuel the individual industries which are hallmarks of Korea's export-led economy. Roughly 54 percent[4] of the energy used to sustain Korea's industrial sector comes from petroleum. Simply stated, Korea's economy relies on its industrial sector to produce goods for export and its industrial sector relies on imported petroleum. Thus, in general, while Korea is dependent on imports for all the major constituent materials to produce its energy—oil, coal, natural gas, and uranium—the country is dangerously dependent on imported oil.

Dependency on Imports

Lacking requisite materials, Korea has become a major global importer of non-renewable and fossil energy resources. Currently, Korea is the third largest importer of crude oil in the world.[5] Additionally, the country is the second largest importer of liquefied natural gas (LNG). The Korea Gas Corporation (KOGAS) is the sole provider of LNG in Korea and the largest purchaser of LNG in the world.[6] As of 2007, Korea is also the world's second largest importer of coal.[7] Uranium rounds out the list of energy resource imports. Korea is the world's sixth largest importer of the radioactive element, consuming roughly 4,000 tons per year. Korea's uranium suppliers are diverse, with the country importing mostly from Australia, Canada, Kazakhstan, the United States, and France. Additionally, an agreement was signed with Uzbekistan in May 2008, for supplies to begin in 2010.[8] Similarly, Korea's imported coal comes from a diverse set of countries, including Indonesia, China, Australia, Russia, Canada and South Africa.[9] Along similar lines, Korea's LNG suppliers include Indonesia, Malaysia, Qatar and Oman.[10] The storyline changes with regard to petroleum imports. While Korea's petroleum supply is spread out among 16 different countries, 81.7 percent of the total imports come from the Middle East.[11] This further underscores Korea's extreme oil dependence and begins to explain the country's particular susceptibility to oil supply disruption. Korean industry, and thus by extension, the Korean economy and the country's sustained prosperity, is dependent on Middle East oil.

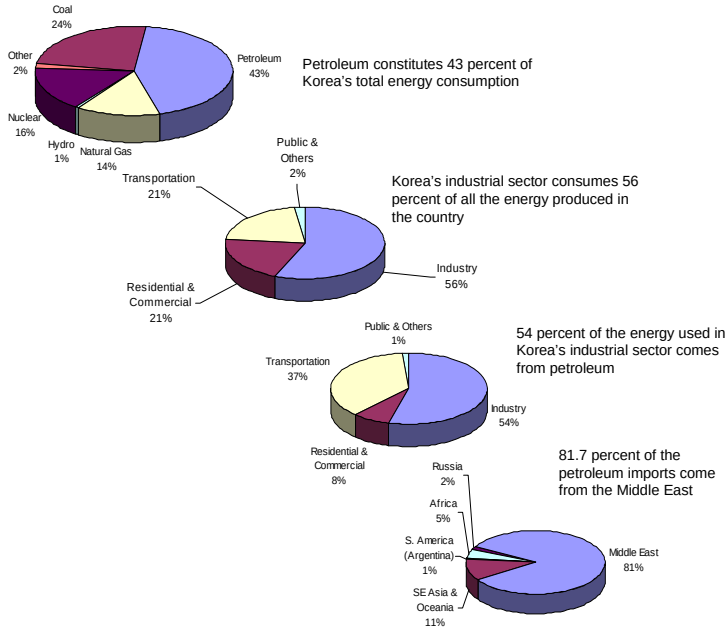


Figure 2. Dependency links tying petroleum and Korean industry to Middle East Oil.

Geographic Limitations

Korea's geographical location presents disadvantages and has led to an arrangement that is a markedly different than, say, the United States. For example, in 2007 the United States' top suppliers of imported crude oil were its border countries, Canada and Mexico.[12] For its energy needs, Korea lacks the convenience of having major suppliers close at hand. The country's entire northern border is cordoned by the Democratic People's Republic of Korea (North Korea). North Korea arterially clogs possible overland pipeline access to the enormous energy supply potential of the Russian Far East, not to mention access to its own coal and uranium resources. Directly to Korea's west lies China, the world's second largest consumer of petroleum and the third largest net importer of oil. To its east lies Japan, the world's third largest petroleum consumer and second largest importer of crude.[13] Japan's energy portfolio and associated vulnerabilities are strikingly similar to Korea's.

China, Japan, and Korea have each expressed great interest in tapping into Russia's Far East energy resources. However, as the country is sandwiched tightly between China and Japan with overland access blocked by its northern neighbor, Korea is not positioned advantageously to compete for Russia's energy supplies. The Korean saying, "The backs of shrimp break when whales fight" comes to mind should a scenario develop where competition heats up. Blocked at its northern border and unable to turn to its immediate neighbors for relief, Korea must reach beyond the region and rely upon the Middle East and costly oceangoing conveyances.

Vulnerability to Geopolitics

Korea's reliance on the Middle East for energy resources means the country is always at risk of injury due to the geopolitics of the region and resultant potential for energy supply disruption. According to the Energy Information Administration, world oil production totaled approximately 85 million barrels of per day in 2007, of which roughly one-half, or over 43 million barrels, was moved by tankers on fixed maritime routes. Roughly 74% of this tanker traffic moves through the Strait of Hormuz and the Strait of Malacca. The Strait of Hormuz is located between Oman and Iran and leads out of the Persian Gulf and the Strait of Malacca links the Indian and Pacific Oceans. Together, these are two of the world's most strategic chokepoints. At its narrowest point, the Strait of Malacca is 1.7 miles wide.[14] Eighty percent of Korea's oil passes through this strait.[15] A disruption to free movement within these shipping lanes would have an immediate and direct effect on Korea's economy. Apart from this very specific scenario, Korea's ties to OPEC oil leave the country vulnerable to disruptions and shocks, the origins of which may not even involve Korea.

When Arab members of OPEC declared an oil embargo in 1973 against the United States and other countries that supported Israel in the Yom Kippur War, oil prices quadrupled, drastically increasing costs for consumers worldwide.[16] Then, during 1979-80, events involving Iran—the Iranian Revolution, deposition of the Shah, the taking of U.S. hostages, and Iraqi invasion of Iran—contributed to nearly tripling the price of oil.[17] The impacts of these "oil shocks" were devastating to Korea's then fragile economy, which suffered a consumer price hike in 1974 close to 25 percent, along with a 29 percent jump in 1979.[18] Korea was hit hardest by the 1979 shock and by 1980, the country's economy moved into a period of temporary decline. For the first time since 1962, Korea posted negative growth, inflation was soaring, and the country's balance-of-payments position had deteriorated.[19] At the time of the shocks, Korea was highly dependent on Middle East oil, and thus very

vulnerable. In 1973, the country was oil-dependent for 54 percent of its energy needs with 85 percent of its imported oil coming from an OPEC triumvirate comprised of Saudi Arabia, Kuwait, and Iran. In 1979, Korea's oil-dependence had increased to 63 percent, with 96 percent of its oil coming from the triumvirate.[20] Amid this second oil crisis, with its economy rapidly degenerating, Korea embarked on a plan of action that still resides at the core of its energy strategy.

Korea's Implicit Core Strategy: Increase Supply, Reduce Dependency

To lessen its vulnerability and enhance its energy security, the Korean government established the Korea National Oil Corporation (KNOC) in 1979 with a charter to manage two major initiatives intended to secure a more stable supply of crude oil: (1) stockpiling and (2) petroleum exploration and development.[21] In the same year, the Korean government promulgated the Rational Energy Utilization Act to address energy efficiency and conservation policies.[22] Also around the same period, Korea began to diversify systematically. First, the country began expanding its energy supply options by developing nuclear power, and by the mid-1980s, LNG was added to its energy portfolio. Korea also expanded its crude oil supplier base well beyond the three-country block of Saudi Arabia, Kuwait, and Iran. Aggregate action taken by Korea to mitigate dependency and bolster supply resulted in the advancement of an apparent, although not stated, energy strategy: *increase supply* and *reduce dependency* through diversification.

Increase Supply – Korea's Cornerstone Strategy

The cornerstone of Korea's energy strategy has been a relentless drive to enhance the "increase supply" piece to Korea's energy strategy through stockpiling and exploration & development. Through the efforts of state-run KNOC, beginning in 1980 and continuing today, Korea has built up a significant strategic reserve of crude oil and petroleum products. The original stockpiling target of 60 days' supply, based on petroleum consumption rates which had been decreasing annually since 1979, was reached in 1988. However, beginning in 1989, Korea's oil consumption started to accelerate and the stockpile level declined precipitously to 26 days.[23]

By 1992, the Korean government enacted a law which imposed mandatory stockpiling of private sector oil. Since 1993, mandatory annual stockpiling quotas based on the previous year's domestic sales volumes and set at a 40-day supply level have been levied on oil refiners and independent oil importers.[24] After the 1997-98 Asian financial crisis, Korea expanded strategic storage capabilities in 1999 through an

International Joint Stockpiling program. Under the program, foreign companies lease surplus storage capacity, thus providing Korea with rent revenue along with a stipulation that in the event of a supply emergency, Korea will have preference to purchase stored stocks at market prices.[25]

In 2001, Korea was invited to become the 26th member of the Paris-based International Energy Agency (IEA). Founded in 1974 in the wake of the first oil shock, IEA is an autonomous body with the Organization for Economic Cooperation and Development (OECD), and represents major energy-consuming nations to work for stability in global energy markets. The key requirement for IEA members is that they hold over 90 days of emergency oil stocks, a milestone Korea, by that time, had surpassed.[26] Thus, the IEA is essentially the industrialized, oil consuming nations' counterbalance to the OPEC cartel. IEA member countries have an obligation to take joint measures to meet oil supply emergencies in accordance with the Agreement on an International Energy Program, the treaty upon which the IEA was established in 1974. Oil supply emergencies and disruptions have numerous potential causes, including geopolitical tensions, terrorism, natural disasters, oil production capacity constraints, and uncertain investment climates. In the event a severe oil supply disruption occurs or is anticipated, the IEA assesses global market impact and the potential need for an IEA response. If it is determined that a response is required, each member country is obligated to make oil available to the market. A member country's share of the response is intended to be proportionate to its share of the total consumption of IEA member countries.[27] As a significant global consumer of oil, this places a heavy burden of responsibility on Korea. Events occurring in a distant corner of the world which negatively impact the global oil market can result in Korea drawing down its stocks. Hurricane Katrina is a case in point.

Hurricane Katrina slammed into the U.S. Gulf Coast in late August 2005, causing death and wide scale destruction. The Gulf Coast is an important U.S. center for natural gas and petroleum production, refining, and distribution, with refineries, storage tanks, pumping stations, pipeline, and ports connected together as a singular strategic supply chain. Hurricane Katrina severely disrupted that system. Concerned that the disruption would have a damaging effect on the global oil market, the IEA took collective action on 2 September 2005 with the support of all IEA member countries. The decision was made to release 60 million barrels of oil to the market over a 30-day period. Korea's Ministry of Commerce, Industry, and Energy (MOCIE, now the Ministry of Knowledge Economy or MKE) met with KNOC and domestic refiners over a two-day period, 4-5 September, and agreed on a plan to release

2.9 million barrels of fuel (2.5 millions barrels of crude, and 0.4 million barrels of refined fuel) from 10 September through 10 October. KNOC successfully completed the stock release on 10 October, as planned. [28] Claude Mandil, IEA's Executive Director, announced that collective action by IEA's member countries had successfully terminated on 22 December.[29] With the country's stock release representing less than 2 percent of its reserves, Korea's participation in the collective event can be positively characterized as a safe and successful exercise in the implementation of the country's petroleum drawdown plan.

By June 2007, KNOC had an operating storage capacity of 121 million barrels, with an actual aggregate inventory of 75.7 million barrels of petroleum stored in both above-ground tanks and underground caverns in nine locations throughout the country. This represented over 140 days of supply when industry-held stocks of 92.6 million barrels were added to the total.[30] KNOC plans to increase storage capacity to 146 million barrels by 2009 with 141 million barrels of petroleum inventory by 2010.[31] In addition to stockpiling initiatives, KNOC is charged with increasing the country's energy supplies through overseas exploration and development projects. These projects also serve to diversify Korea's dependence away from the Middle East. Correspondingly, KNOC is actively engaged, compiling equity in overseas oil production and exploration projects.

Reducing Dependency by Enhancing Supply Diversification

KNOC is currently involved in 16 countries in at least 35 projects involving exploration, development or production of oil or natural gas. Of these projects, eight are producing either oil or gas.[32] According to the Ministry of Knowledge Economy (MKE, formerly MOCIE), Korea is investing $18.5 billion in KNOC to expand production capacity about six times, with a target of reaching 300,000 barrels (of oil equivalent) per day by 2012. This is a six-fold increase from the current 50,000 barrel per day output. Thus by 2012, KNOC will be able to meet roughly 25 percent of Korean's crude oil demand, a significant increase from the current 4 percent. To do this, KNOC will form a strategic alliance with Korea's state-run gas company (KOGAS).[33] It is not clear what the natural gas to oil ratio will be. Active projects are depicted below, according to the country in which the activity is occurring. Also shown is Korea's percentage share of the corresponding projects.

Since 1979, when the country initiated its determined drive to increase energy supplies and reduce dependency through diversification of suppliers and resources, Korea's energy mix has fluctuated in accordance with microeconomic trends, oil prices, and regard for the environment. In general, over the years, there have been slight but

steady increases in the use of LNG and nuclear energy. On the other hand, coal and oil have alternated gains. When oil consumption has increased, coal has decreased, and vice versa.[34] These fluctuations notwithstanding, the basic core energy strategy of "*Increase Supply, Reduce Dependency*" can still be found, both in the recently stated initiatives of President Lee Myung-bak as well as subtly embedded in Korea's current National Energy Plan. The current plan was considered and confirmed by State Council in December 2002 and still appears to be relevant and official. As of this writing, the plan can be viewed on the Korea Energy Economics Institute website.[35]

Table 1. KNOC Worldwide Exploration and Production Activity[36]

Country	Project	Working Interest	Phase of Activity
Azerbaijan	Inam	8%	Exploration
Indonesia	NEM$_{I}$	50%	Exploration
	NEM$_{II}$	56.25%	Exploration
	WOKAM	80%	Exploration
	SES (South East Sumatra)	8.91%	**Production**
Kazakhstan	ADA	22.50%	Exploration
	Egizkara	25.00%	Exploration
	South Karpovsky	17.50%	Exploration
China	Mahuangshan West	30.80%	**Production**
Uzbekistan	Aral	10.20%	Exploration
Vietnam	15-1	14.25%	**Production**
	11-2	39.75%	**Production**
Canada	BlackGold Oil Sand	100%	Development
Peru	115	30%	Exploration
	8	20%	**Production**
USA	Jaguar area	15%	Exploration
	Cougar$_{I}$ area	15%	Exploration
	Cougar$_{II}$ area	25%	Exploration
	Sabco area	15%	Exploration
Venezuela	Onado	6%	**Production**
Libya	Elephant NC174	2%	**Production**
Nigeria	OPL321	43.88%	Exploration
	OPL323	43.88%	Exploration
Russian Federation	Tigil	27.50%	Exploration
	Icha	27.50%	Exploration
	West Kamchatka	20%	Exploration
United Kingdom	Captain	14.24%	**Production**
	13/22d	30%	Exploration
Iraq	Bazian	38%	Exploration
Yemen	Marib LNG	1.06%	Development
	4	28.50%	Development
	4	28.50%	Exploration
	16	45.13%	Exploration
	70	58.66%	Exploration
	39	45.13%	Exploration

Korea's Stated National Energy Plan

Pursuant to Article 4 of the Rational Energy Utilization Act of 1979, a National Energy Plan which targets all areas of Korea's energy sector must be renewed every five years. The current standing plan was

formulated and confirmed at the end of the Kim Dae-jung administration in 2002. The policy goals under the current plan include: (1) Sustainable Development of Energy; (2) Market-Driven Operations; (3) Maintaining an Open, Interconnected System; and, (4) Development of Market-Creating Technologies. The outline below lists supporting objectives of these major policy goals.[37]

Sustainable Development of Energy

1. Establishment of an Environment-Friendly Energy System to Address the United Nations Framework Convention on Climate Change
2. Rational Energy Utilization
3. Continuous Implementation of a Stable Energy Supply Basis
4. Reinforcement of Local Government Energy Policy Functions

- Market-Driven Operations
  1. Restructuring and Privatization of the Energy Industry
  2. Establishment of an Independent Regulating Body and Competitive Market System
  3. Promotion of the Energy Price Function
  4. Promotion of General Energy Industry Basis and Electronic Commerce
- Maintaining an Open, Interconnected System
  1. Strengthening International Energy and Resources Cooperation
  2. Building Northeast Asian Energy Cooperation Network
  3. Promoting Energy Cooperation between South and North Koreas in Preparation for a Unified Korea
  4. Expanding Overseas Resource Development
- Development of Market-Creating Technologies
  1. Reinforcing the Support System for Technological Innovation in the Energy Sector
  2. Reinforcing New and Renewable Energy Technology Development
  3. Developing the Energy Industry into an Export Industry

Enter President Lee Myung-bak

While the above policy goals are still published as Korea's national energy plan, words and actions by President Lee, inaugurated in February 2008, are indicative of a clearer and comprehensive approach targeting increasing energy supplies, decreasing reliance on oil, and reducing greenhouse gas emissions. Speaking at a G8 Summit in Toyako, Japan in July 2008, President Lee pointed to the high cost of oil and outlined an approach focusing on demand and supply-side measures:[38]

- Demand
    1. ". . . employ all possible measures to mitigate the rise in the demand for oil"
    2. Take active measures to "adjust domestic oil prices in order to control demand"
    3. Share "our experiences and best practices . . . in curbing the demand for oil"
    4. ". . . advanced countries (such as G8 countries) share their technological and policy know-how with the developing countries"
- Supply
    1. ". . . increase the exploration and production of oil throughout the world"
    2. ". . . lessen our excessive dependence on oil…with a long-term view, to diversify our energy resources" (including nuclear and renewable energy such as wind, solar, and hydrogen fuel cells)

A month later on 15 August 2008, at Gyeongbok Palace in Seoul, President Lee unveiled the vision, *Low Carbon, Green Growth*, during a speech commemorating the 63rd Anniversary of National Liberation and the 60th Anniversary of the Founding of the Republic of Korea. This time, the Korean president pointed not just to the cost of oil, but to Korea's economic difficulties—a "growing sense of crisis that we might collapse"—that stemmed from "the energy crisis." He went on to describe "an age of new energy" which was "leaving behind the era of wood, coal and oil." As he called for turning "the recent surge in oil prices into an opportunity to transform economic fundamentals and create new growth engines," he listed the elements to the country's new core vision, tying it to a new national paradigm of development to create growth and jobs with "green technology and clean energy"[39]

- With energy security as the primary focus, increase the energy self-sufficiency rate from 5 percent to 18 percent during his (President Lee's) term in office, eventually raising the rate to more than 50 percent by 2050
- Explore and research the Arctic Ocean and Antarctic for natural resources
- Boost use of new and renewable energy from 2 percent to more than 11 percent by 2030, and more than 20 percent by 2050
    - More than double R&D investments in green technology
    - Increase use of solar, wind and tidal energy
    - Promote the Green Home Project to get a million homes using new and renewable energy
    - Develop technology for pollution-free coal and light-emitting diodes
- Place great emphasis on nurturing environmentally friendly and highly efficient green cars
    - Empower Korea to emerge as one of the world's top four green-cars producing nations
- Move toward becoming a low-carbon society by implementing measures against climate change

Coinciding with President Lee's announcements were reports in July and August that appeared in the press. In early July, KBS reported that construction of a tidal power plant would be completed in November 2009. Along with another planned plant, the west coast of Korea "is now expected to become the world's largest tidal power plant belt."[40] In late July, an official from MKE announced that Korea planned to spend roughly $193 million in 2008 on alternative energy technologies such as solar, wind, and biofuels.[41] Then on 13 August, a German company, Conergy, stated that it had reached an agreement on a $29 million project to expand a solar plant in southwest Korea. The solar plant is already the largest in Asia. When the expansion is completed, the plant will cover an area equivalent to 96 football fields and provide enough energy to supply over 7,000 homes.[42]

The day following the solar expansion project, it was reported that Korea had decided to focus on nuclear power as a way to reduce reliance on fossil fuels while meeting global environment regulations. An MKE official disclosed that the country was planning on building 11 new

nuclear reactors by 2030, which would make nuclear power Korea's biggest source of power for electricity. These new reactors would be added to 20 existing reactors and an additional eight that were under construction as of August 2008, for a total of 39.[43]

Two weeks after the nuclear reactor expansion report, another MKE official reported that Korea will spend $103 billion through 2030 to develop new renewable energy to cut reliance on fossil fuels and reduce carbon dioxide (CO2) emissions. The plan will expand renewable energy use to 11 percent from its current 2.4 percent and lower fossil energy from 83 percent to 61 percent by 2030. In what is likely to be an initial installment of this plan, the MKE announced in September that Korea would spend $2.7 billion to focus on nine areas including solar, wind, fuel cells, carbon capture and storage, and gas-fired power plants, expanding the use of alternative energy by 2012 to counter high oil prices and reduce greenhouse-gas emissions.[44] Finally, two weeks later, MKE announced that the Korean government had established 22 new "future growth engines" that will help achieve President Lee's vision for "low carbon and green growth" while creating new jobs for the Korean economy. Accordingly, a decision was made on 22 September to invest $87 billion into the 22 "future growth engines" which include the following:[45]

- Marine bio-fuel[1]
- Solar cells
- Pollution-free[2] coal energy
- Use of carbon dioxide as an energy source
- Cultural content
- Robots
- LED lighting
- New nano-fusion materials
- Next-generation wireless communications
- Ship & marine systems
- Displays
- Software design
- Nuclear power plants
- Fuel cell development systems
- Healthcare
- Green cars
- Fusion media
- New bio-medicines
- Medical equipment

[1] This initiative aims to replace eight percent of domestic petroleum with synthetic fuel while recycling carbon dioxide generated during the process; the industry is expected to create 150,000 jobs by 2018.

[2] Seaweed is expected to be used as a feedstock to produce bio fuel substitute for petroleum; the goal is to replace 20 percent resources, which will contribute to replacing 20 percent of liquid petroleum based fuel.[46]

President Lee has also been active in ongoing engagement efforts with Russia. The oil and natural gas possibilities of the vast Russian Far

East have long been eyed by Russia's energy-intensive neighbors—China, Japan, and Korea. In late September, on the heels of the aforementioned government announcements concerning alternative and renewable energy projects, President Lee traveled to Moscow. He began a three-day trip on 28 September, becoming the first South Korean president to visit Russia during his inaugural year. The following day, at a forum between Korean and Russian business leaders, President Lee proposed that Seoul and Moscow open a "New Silk Road" era, imploring Russia to speed up efforts to link the trans-Korean railway with Russia's trans-Siberian railway, for an eventual connection to Europe. Additionally, President Lee explained his desire to play a role in promoting closer cooperation with Russia in developing oil and gas resources, as well as agricultural and forestry resources from the Russian Far East.

A total of 26 agreements were signed at the forum with the intent of accelerating cooperation in energy, resources and industrial technologies. One of the agreements was a plan for Korea to import $90 billion of natural gas from Russian gas fields on Sakhalin Island via North Korea. According to MKE, the agreement would have Korea importing natural gas for 30 years, with deliveries beginning in 2015. North Korea could earn $100 million a year for allowing the project to pass through its territory. If an arrangement with North Korea does not come to fruition, Russia will supply the fuel in the form of liquid or compressed natural gas from Vladivostok. A final agreement will be signed in 2010 by Russia and Korea when a study on the supply route is completed. The gas is expected to fulfill about 20 percent of Korea's annual natural gas consumption.[47]

Assessment of Korea's Energy Plans – Will Korea Climb "Out of the Box"?

Through the years, Korea has managed its large and continually growing energy requirement in spite of severe limitations. With an economy dependent on an industrial sector that relies on uninterrupted supplies of secured energy so the country can continue to produce and move goods, Korea has been literally boxed in by four major constraints: (1) lack of resources; (2) dependency on imports; (3) geographic limitations; and, (4) vulnerability to geopolitics. The country's lack of raw materials makes Korea terribly dependent on imported energy resources. However, due to its geography, Korea must reach far beyond its borders to secure supplies, resulting ultimately in a reliance on mostly Middle East and OPEC oil. Thus, Korea has been, and continues to be, highly susceptible to geopolitical hazards which result in occasional shock and disruption. Barely weathering the oil shocks of the 1970s,

Korea continues to work on supply and dependency issues to avoid the possibility of a next great energy crisis. President Lee Myung-bak has rolled out an enormously ambitious plan atop a sturdy foundation of past policy measures, presenting a robust set of initiatives intended to increase energy supplies, decrease reliance on oil, and reduce greenhouse gas emissions. Will these initiatives, only recently announced, ensure Korea is truly on course to reduce super-dependency risks and push the country forward with a sound energy plan?

Addressing Lack of Resources

As the country severely lacks energy resources, much emphasis has been placed on increasing supplies. Korea has made great strides in creating and cultivating a large stockpile of petroleum and petroleum-based products. Beginning with modest KNOC initiatives in 1979, and reaching by 2007 a stockpile of 140 days of supply, Korea has put in place assured strategic supplies that will greatly lessen the impact of any future supply disruptions. With KNOC's plans to increase inventory stocks to 141 million barrels by 2010, Korea will have roughly 200 days of supply—almost seven months—with which to absorb the impact of any future oil shocks. In addition to these safety reserve stocks, Korea is also determined to increase supplies of new and renewable energy to cut reliance on fossil fuels and reduce carbon dioxide (CO2) emissions.

President Lee's goal calls for an increase in the use of new and renewable energy from 2 percent to more than 11 percent by 2030. An increase of this magnitude could significantly decrease reliance on Middle East resources, should it actually be realized. Thus far, Korea has publicly shown a high degree of resolve, announcing plans to spend $193 million in 2008, $2.7 billion by 2012, and ultimately $103 billion through 2030 to develop and expand renewable energy use.

Major R&D areas being carried out by the Korea Institute of Energy Research seem to support President Lee's goals. These research areas are indicative of accelerated efforts to enhance and develop renewable energy, alternative and synthetic fuels, and hydrogen fuel cell technologies.[48]

Finally, if Korea follows through and builds 11 new nuclear reactors by 2030, nuclear power will become Korea biggest source of power for electricity, greatly reducing fossil fuel dependency as well as greenhouse gas emissions. Factored together with the natural gas Korea is hoping to obtain from Russia, these efforts could greatly decrease the coal and especially the oil Korea requires to power its industrial sector.

Addressing Dependency on Imports

Korea has also made great strides in reducing its dependency on imports while increasing its ratio of self-sufficiency. KNOC is currently involved in 16 countries in at least 35 projects involving exploration, development or production of oil or natural gas. If KNOC's overseas production expansion plans targeting 300,000 barrels per day of crude output come to fruition by 2012, KNOC self-sufficiency would increase from 4 to 25 percent, again significantly decreasing reliance on Middle East oil. President Lee hopes to further this by boosting energy self-sufficiency to 40 percent by 2030 and more than 50 percent by 2050. Part of this strategy appears to be an ambitious plan to explore the Arctic Ocean and Antarctic. Similarly, Korea's agreement with Russia to obtain natural gas through North Korea, should it come to fruition, will enhance Korea's position away from its oil dependency.

Addressing Geographic Limitations

If Korea's plans to increase supplies of new and renewable energy are carried out, its geographic limitations won't vanish, but they will diminish somewhat in intensity because the country's energy self-sufficiency and supplies will increase while its super-dependency on oil will decrease. Regional arrangements with China and Japan could blossom or sputter, depending on how the countries manage their respective energy strategies in the near-mid-and long-term. Russia, through its actions over the last couple of years, may not be desirable as an energy provider for some countries, particularly European countries. However, as President Lee's plan shows, Korea is willing to deal with Russia. Should a mutually beneficial arrangement be concluded, especially one that draws North Korea into a productive role, the deal would be a boon not only to Korea, but for the region. Russia has the resources to spur on additional cooperative arrangements to supply natural gas and oil to Northeast Asia. The region could benefit by entering into mutually beneficial infrastructure development projects and other joint ventures. Regardless of Russia's current and expected behavior, Korea cannot and should not ignore possibilities involving natural gas from Russia. In the meantime, Korea should continue active participation with forums such as the Association of Southeast Asian Nations (ASEAN) Plus Three and Asia Pacific Economic Cooperation (APEC).

Addressing Vulnerability to Geopolitics

Korea's vulnerability to geopolitics stems from the country's reliance on the Middle East for energy resources. Should a war, terrorist event, or decision by OPEC cause a sudden disruption to global

petroleum supply, Korea must tough it out until the disruption is over. Korea is much better prepared to deal with a disruption, even a prolonged one, as the country has developed robust stockpiles of reserve petroleum supplies. Korea successfully exercised an orderly drawdown of its stocks when Hurricane Katrina severely damaged the petroleum supply chain along the U.S. Gulf Coast and threatened global disruption. Korea's stockpile, along with its plans to increase energy supplies and further decrease oil dependency, greatly reduce the country's geopolitical vulnerabilities. As the need to explore the possibilities of regional cooperation with Russia, China and Japan becomes more apparent, the tenor and variety of Korea's geopolitical risk may change.

Conclusion and Recommendations

Korea has established goals that, if pursued and accomplished, will greatly diminish the severity of the above-mentioned constraints. As energy markets move through their respective business cycles, the price of commodities such as oil will fall, rise, and fall again. There will be a natural proclivity for countries to weigh the economics of the day and turn away from the commitment to R&D and investment that new and renewable energies require. Korea should ignore the capriciousness of fleeting business cycles and follow through with President Lee's vision, and effectively put an end to the era of energy super-dependency. In the meantime, there are some additional considerations, ideas and approaches which are worthy of further evaluation by Korea's energy strategists:

Coal-to-Liquid Fuels

Korea can make supply inroads through the commercialization of alternative and synthetic fuels while simultaneously reducing the requirement for petroleum-based liquid transportation fuels. Coal is an attractive resource, because it is found throughout the world, and unlike oil, its heaviest concentrations are not found in the Middle East. Considering its proximity to Australia, China, Indonesia, and Russia and the vast coal resources contained in those countries, Korea appears to be suited to develop Fischer-Tropsch synthetic fuel using clean coal technology. Korea could leverage its robust petroleum refining model and develop a "liquid fuels" hub in Northeast Asia. The high levels of interest China and Australia have shown in developing indigenous coal-to-liquid plants presents Korea with an opportunity to join a new regional market drive towards a viable alternative to petroleum.

Plug-in Hybrid Vehicles

Among Korea's many slated initiatives, one surprising omission is the apparent lack of a plug-in hybrid vehicle plan. With increased supplies of renewable and nuclear energy, Korea's streets and highways appear to be a friendly environment for battery-powered electric vehicles. It is possible that this technology, although not well publicized, is being considered among the many others.

Less Emphasis on Solar

With regard to renewable energy, while wind power makes sense, considering Korea's long coast line and incessant supply of this renewable source on Cheju-do and other islands surrounding the peninsula, solar power doesn't seem to offer the same "bang for the buck." Korea does not receive intense sun, and usually experiences a full month of rain during its hottest season in the summer—*chang-ma*.

Careful Negotiations with Russian and Caspian Sea Countries

Turning to Korea's efforts to conclude deals with Russia, it must be pointed out that while these negotiations have the potential to produce phenomenally productive results, these strategies are inherently both costly and risky. It is quite possible that Russia's intent is to entice Korea to join China and Japan in a bidding war for Russia's natural resources. Regardless of its true intent, Russia's behavior has caused widespread concern. Russia's recent actions in Georgia caused BP to shut down an oil pipeline, temporarily stopping the natural gas flow through Georgia and calling into question plans for a Eurasian corridor free from Russian interference.[49]

Previously in 2006, Russia cut off gas supplies to Ukraine and Moldova and also threatened to cut off gas to Belarus and Georgia over price disputes.[50] Considering this and the complex issues surrounding the countries in the Caspian Sea region (KNOC's efforts include dealings with Azerbaijan, Kazakhstan, Uzbekistan and Russia), Korea must realistically conclude that some, if not many, of these KNOC expansion plans may not conclude as planned. Finally, Korea should stay vigilant for the potential to clash with other countries who are seeking similar deals with these countries, particularly China and Japan. Heated competition with China or Japan would exacerbate the challenges that Korea's geographic limitations pose.

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The Economic Case for the Asian Monetary Fund

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ABSTRACT

The inadequacy of the IMF to cope with today's international financial problems has become increasingly evident. Its governance system is also antiquated since it primarily reflects the economic reality of the world some sixty-five years ago towards the end of World War II. Furthermore, the IMF's resources alone are no longer sufficient in coping with new types of international financial crises that have afflicted the global economy in recent decades and that are likely to erupt in the future as well. As many Asian countries have realized that the IMF does not really possess adequate financial resources to assist them in the event of another Asian financial crisis, they have had to resort to massive accumulation of foreign exchange reserves themselves. Since the Asian financial crisis, the world foreign exchange reserves have increased from $1.8 trillion in 1997 to $8 trillion in 2008. The bulk of the increase was accounted for by Asian countries whose combined foreign exchange reserves increased from $900 billion in 1997 to $6.2 trillion in 2008. Foreign exchange reserves are a form of self-insurance of a country against a potential future international financial crisis and, as such, they are very expensive due to their substantial negative carry cost. Another economic cost of huge foreign exchange reserves held by Asian countries could result from a potential depreciation of the U.S. dollar.

Key Words: Asian Monetary Fund, Chiang Mai Initiative (CMI), International Monetary Fund, Foreign Exchange Reserves, Financial Resources of IMF, International Financial Architecture, Asian Financial Crisis

Introduction

During the past two and a half decades, the International Monetary Fund (IMF) has often been criticized for its harsh and inflexible economic measures as, for example, when it tried to cope first with the LDC debt crises in the 1980s and then with a series of international financial crises that plagued the global economy starting in the early 1990s, such as the 1994-95 Mexican peso crisis, the 1997-98 Asian financial crisis, the Russian and Brazilian financial crises in 1998-99, and the Argentine and Turkish financial crises early in the 21st century. In addition, the governance structure of the IMF has been heavily skewed in favor of American and Western European countries at the expense of many important Asian and other emerging market countries. The manner in which the head of the IMF is chosen has also been criticized by many observers and especially by those from Asia, injecting further doubt into the policy neutrality of the IMF in today's global financial system and the relevance of the IMF to Asia in particular. By tradition, the job of the IMF managing director goes to a European while the presidency of the World Bank is occupied by an American, leaving no place for an Asian ever to head either of the two premier Washington-based international finance institutions.

Nevertheless, Asian countries have an important stake in the proper running of the international financial system, as they suffered heavily from both the Asian financial crisis of 1997-98 and its aftereffects connected with IMF conditionality packages accompanying IMF financial assistance to Asian countries. As the international monetary and financial architecture now stands, the two most important international finance organizations, the World Bank and the IMF, are dominated by the Western powers of North America and Europe. The voice of Asia in the twin Washington-based institutions has been marginalized during the past sixty-five years of their entire existence, and there is no likely prospect that this situation will fundamentally change in the foreseeable future despite some self-serving assurances and several cosmetic gestures by the Western powers in the running of these important organizations.

The Decreasing Relevance of the IMF to Asia

Since the IMF and the World Bank were established at the Bretton Woods Conference in 1944, hence known as the Bretton Woods twins, the voice of Asia has always been marginalized in the two international finance organizations. Even though China's population is the largest in the world and its economy in purchasing power parity terms is the second largest in the world after the U.S., China's IMF quota is only the 6th among its 185 member countries. It is further troubling indeed that,

in the Bretton Woods twins, India with the 5th largest economy in the world with GDP of $3.3 trillion in 2008 has fewer votes than the Netherlands which is the 21st economy with GDP of only $670 billion, barely one-fifth of India's GDP. Furthermore, Korea has an economy almost four times that of Belgium but it has fewer votes in the Bretton Woods twins than the small European country. There are so many other examples showcasing the systematic discrimination against Asian countries in favor of Western European countries, even though these Asian countries are far more important in the current global economy than their respective European counterparts in terms of their economic sizes, world trade volumes and populations.

At the same time, the current financial resources of the IMF are woefully inadequate to cope with another Asian financial crisis similar in size of that in 1997-98. The total IMF quotas as a percentage of world imports have declined from 58 percent in 1944 to just 2 percent in 2008, largely because the influential Western industrialized countries, which have not borrowed from the IMF in the last 30 years, have become reluctant to agree to increased IMF quotas commensurate with the increased volume of world trade and international financial flows. As a result, the ability of the IMF to handle major international financial crises has declined drastically. As of mid 2009, the total usable IMF resources amounts to only $220 billion, compared to over $4 trillion of foreign exchange reserves held by just six Asian countries (or "economies"), of Japan, China, India, Taiwan, South Korea and Hong Kong. Since the IMF has already lent out much of $220 billion to its member countries, a more appropriate measure of the IMF's true capacity to assist any *future* borrowers is known as the "one-year forward commitment capacity" (FCC). It takes into account that some of the IMF's available resources have already been committed and that a prudent balance is also needed to safeguard the liquidity of creditors' claims on the IMF and guard against any potential erosion of the IMF's base of available resources as well as any amounts that are projected to be repaid to the IMF over the coming 12 months. The IMF's one-year FCC stands at only $50 billion as of mid 2009, which is far less than one-third the foreign exchange reserves of Hong Kong at $180 billion.

After the bitter experience of many Asian countries with IMF loans with unrealistic and unusually harsh conditionality during the 1997-98 Asian financial crisis, Asian countries have intentionally stayed away from the IMF for any further borrowing. Only Pakistan and Mongolia have outstanding loans from the IMF among Asian countries, with Mongolia accounting for only 0.2% of IMF's outstanding loans. Out of the total outstanding IMF loans of $32 billion as of early June 2009, just

four countries of Hungary, the Ukraine, Romania and Pakistan account for 87 percent, exhibiting a severe concentration of the IMF's credit risk exposure to a handful of former Eastern European countries.[1] Since the Asian financial crisis, the IMF has been at the mercy of mostly non-Asian borrowers. Early in the 21st century, the IMF was over-exposed to the Latin American countries of Brazil with $28 billion loans and Argentina with $16 billion. Its mistake in granting huge loans to Argentina in 2001 was skillfully manipulated by the Argentine government in March 2004, when the IMF was forced to roll over its maturing Argentine loans despite the largest default in history by the Argentine government of $107 billion on its private creditors.[2]

Role of the U.S. and the IMF in Disorderly Financial Liberalization in Asia

Many economists have argued, and even some key former officials of the Clinton Administration now admit, that both the U.S. government and, by extension, the IMF pushed the developing countries, especially the Asian emerging market countries, too hard for financial liberalization and freer capital flows in 1990s, allowing foreign capital to stream into Asia. The booming Asian economies of the early and mid 1990s were a tempting target for foreign investors from industrialized countries. The U.S. government wielded its enormous influence in Asia both directly and through the IMF to open up Asian financial markets, hailing the virtue of free capital flows but neglecting to make them safer. Encouraged by Western scholars and journalists who acclaimed the bright future of Asian emerging markets and the coming "Asian Century", Western portfolio investors and bankers in the 1990s were too happy in pouring investment capital into Asia. Much of these foreign capital inflows was used by Asian businessmen for speculative real estate developments and other ambitious projects without due consideration of sound investment criteria.

Although the U.S. government has traditionally encouraged financial liberalization of developing countries as highly desirable for their own sake, it has also been reported that the Clinton Administration pushed especially hard for free capital flows in part because this was what its supporters in Wall Street and the U.S. banking industry wanted.[3] Quoting a number of key Clinton aides, a *New York Times* article reported that the push for financial liberalization was directed at Asia in particular, largely because it was seen as a potential gold mine for American banks and brokerage houses. The idea was to press Asia to ease its barriers to American financial services and products, "helping Fidelity sell mutual funds, Citibank sell checking accounts and American International Group (AIG) sell insurance."[4]

A case in point was the U.S. negotiation strategy on Korea's entry into OECD during the 1990s. *The New York Times* quoted a senior OECD official, who stated that "To enter OECD, the Koreans agreed to liberalize faster than they had originally planned. They were concerned that if they went too fast, a number of their financial institutions would be unable to adapt."[5] The same *New York Times* article also cited a U.S. Treasury Department memorandum dated June 20, 1996, which specified the U.S. Treasury's negotiating position, listing priority areas for further financial liberalization in Korea. These included letting foreigners buy domestic Korean bonds, letting Korean companies borrow abroad both short term and long term, and letting foreigners buy Korean stocks more easily, all of which were "of interest to U.S. financial services community," according to the memo. In the end, Korea opened up its financial markets the wrong way by keeping restrictions on long-term foreign investments in Korea but freely allowing short-term overseas borrowing by Korean firms, even though short-term capital flows are far more volatile than long-term investments as the subsequent event in Korea during the Asian financial crisis proved.

In Asia, there is a strong suspicion that the IMF was also used by the U.S. government in its efforts to pursue aggressive financial liberalization. An example was the April 1997 meeting of G-7 finance ministers chaired by U.S. Treasury Secretary Robert Rubin, a former Wall Street banker himself, which issued a statement "promoting freedom of capital flows" and urged that the IMF charter be amended so that the Fund could lead the charge for capital account liberalization. The record shows that the IMF, characterized by *The New York Times* as "an extension of American policy" and by *The Wall Street Journal* as "a subsidiary of the U.S. Treasury Department", was actively promoting financial liberalization in Asia before the Asian financial crisis, for example praising in 1996 the accelerated capital account liberalization in both Indonesia and South Korea.

Doubt on the Effectiveness of the IMF Policy Measures to Cope with the Asian Crisis

The key ingredients of the IMF programs dealing with the Asian financial crisis of 1997-98 were a tight macroeconomic policy and structural adjustment. High interest rates and tight monetary policies, mandated for the Asian crisis countries in the IMF programs of 1997-98, were claimed by both the IMF and the U.S. Treasury Department to be necessary or inevitable, at least in the short run, for the stabilization of the exchange rate. High interest rates were supposed to help not only stabilize the exchange rate by discouraging capital outflows (and equally, encouraging capital inflows) but also facilitate much needed corporate

sector restructuring. Nevertheless, this textbook prescription needed to be reevaluated in light of the financial panic situation since high interest rates were not effective in reversing massive capital outflows from Asia. Furthermore, given the heavy reliance on corporate debt in Asia resulting in high leverage, the sky-high interest rates mandated by the IMF for the Asian crisis countries at that time imposed crushing financial costs on Asian firms, and hence, significantly increased the risk of corporate bankruptcies. Widespread corporate bankruptcies and sharp increases in non-performing loans on the books of Asian banks further discouraged capital inflows into Asia, offsetting any possible positive effects on capital inflows of high interest rates there.

The main components of the IMF conditionality for the affected Asian countries during 1997-98 period were born originally in the 1980s when the IMF was called upon to deal with the LDC foreign debt crisis that was first triggered by Mexico in 1982 and then spread to other developing countries in Latin America, Africa and Eastern Europe. The common economic characteristics of those heavily-indebted LDCs in the 1980s were large fiscal deficits, over-valued currencies, high inflation rates in the double or even triple digits, and heavy government subsidies to bloated public sectors and parastatals. It was natural, therefore, for the IMF to adopt its loan conditionality primarily focused upon the tight aggregate demand management.

The IMF demonstrated its tendency to continue this policy inertia for the Asian countries facing the 1997-98 financial crisis as well. However, such IMF conditionality was ill suited to the Asian crisis, where the countries affected had quite different macro-economic parameters than those LDCs assisted by the IMF in the 1980s. Inflation was not a serious problem for the affected Asian countries, and their budget deficits were either negligible or non-existent unlike many Latin American countries facing foreign debt crisis in the 1980s. In this case the IMF should have refrained from its traditional obsession with the aggregate demand management through tight fiscal and monetary policies. Instead, it should have focused upon economic structural reforms such as liberalization, deregulation, privatization of state enterprises, down-sizing of government agencies, financial sector reforms, the strengthening of a prudent financial supervisory infrastructure, promotion of competitive business practices through stringent monitoring of insider trading and cross-guarantee of affiliates' debts, ensuring business transparency with the adoption of international accounting standards, the modernization of corporate governance, and labor market flexibility. In the immediate aftermath of the Asian financial crisis, however, the IMF stubbornly insisted on tight aggregated

demand management policies, despite their obvious irrelevance to the Asian countries then in crisis, thus drastically exacerbating their economic hardships during the crisis.

Need for an Asian Monetary Fund to Better Manage Future Asian Financial Crises

The Asian financial crisis of 1997-98 has taught Asian countries many valuable lessons. One of them is the urgent need to establish their own monetary fund that can better adjust their assistance packages suitable to Asia with the right policy mixes appropriate for Asia rather than being manipulated to the advantage of non-Asian economic and financial interests. Such a fund could function to complement but not necessarily to replace the IMF in Washington. The World Bank in Washington has worked quite well in synergy with regional development banks such as the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, and the Inter-American Development Bank. The IMF should not insist on its monopoly role as "the" world monetary fund but instead should cooperate with any new regional monetary funds that might be established in the future, such as African, Asian, Eastern European and Latin American Monetary Funds.

In 1997 and early 1998, during the height of the Asian financial crisis, when many Asian countries needed massive emergency funds to cope with panicky capital outflows from the Asian region, there were serious discussions among some Asian countries on establishing an Asian Monetary Fund (AMF) in order to supplement the Washington-based IMF. The Japanese government, for example, was willing to make a major contribution of up to $50 billion to the new AMF that might have an initial capital resource of about $100 billion, with the rest of its capital to be contributed by China, Hong Kong, Taipei and Singapore. The proposal for an AMF was strongly supported by other Asian countries such as Malaysia and Thailand as a way to supplement dwindling IMF resources. Australia also showed its support for an AMF and even its willingness to join.[6] Unfortunately, but predictably, the idea of a new AMF was bitterly opposed by both the U.S. government and the IMF, which were afraid of the presumed erosion of their traditional monopolistic influence on Asian economic policy making. Opponents of the AMF argued that a regional fund such as an AMF would unnecessarily duplicate IMF's activities and lead to moral hazard problems. However, the moral hazard problem associated with mutual liquidity provisions by both the IMF and an AMF to an Asian country in financial crisis could be addressed by policy harmonization between the two institutions similar to the harmonization of loan covenants between

the World Bank and regional development banks such as the Asian and Inter-American Development Banks.

In hindsight, a growing number of observers believed after the Asian financial crisis that such a regional fund as AMF would make a lot of economic sense.[7] When the IMF remained the only guardian of the Bretton Woods system of globalized fixed exchange rates during the 1945-73 period, perhaps there was no need for such regional monetary funds. Since the breakdown of the Bretton Woods system in 1973, however, the IMF has evolved from "the" global monetary system guardian into just another *development finance agency* similar to the World Bank. Under the Bretton Woods system that existed from 1945 through 1973, countries seeking IMF assistance were both developing and industrialized countries. (In fact, such industrialized countries as Britain, Italy and France were among the heaviest borrowers from the IMF in those years while the total volume of IMF loans to developing countries was negligible in comparison.) During the past three and a half decades since the breakdown of the Bretton Woods system in 1973, however, the IMF's loan clients have been almost exclusively developing and emerging market countries, which are the same client base of the World Bank and other regional development banks. In fact, the IMF has now become another *de facto* World Bank, catering exclusively to the developing country clientele only, which is quite different from the 1945-73 period. It is no wonder then that some influential voices such as *The Economist* in London have argued for a merger between the IMF and the World Bank.

Also, the character of the IMF financial assistance has shifted fundamentally from temporary balance-of-payment loans for the exclusive purpose of maintaining the Bretton Woods fixed exchange rate system during the 1945-73 period. Nowadays, the IMF also provides longer-term structural adjustment loans for developing countries, a similar role to that of the World Bank. The main difference now between the loans of the two Bretton Woods twins is that the IMF provides mostly policy-based long-term financial assistance, while the World Bank tends to focus more on project-based long-term lending, even though the Bank's structural adjustment loans, among its many lending programs, are essentially undistinguishable from the Extended Fund Facility and other long-term structural adjustment loans of the Fund. It is high time, therefore, for each region to work on establishing its own regional monetary fund in order to supplement the Washington-based IMF, similar to the successful arrangements between the World Bank in Washington and various regional developments banks such as the African, Inter-American, Asian, and European development banks.

Economic Rationale for an Asian Monetary Fund

The inadequacy of the IMF to cope with today's international financial problems has become increasingly evident. Its governance system is also antiquated since it primarily reflects the economic reality of the world some sixty-five years ago at the end of World War II. Consequently, the voting power of Asian countries is disproportionately underrepresented in the IMF compared to the economic size, trade volume and foreign exchange reserves of Asia. Furthermore, the IMF's resources alone are no longer sufficient in coping with new types of international financial crises that have afflicted the global economy in recent decades and that are likely to erupt in the future as well. Compared to today's world trading volume and the magnitude of international financial market activities wherein the *daily* foreign exchange trade volume alone is about $4 trillion, the current size of IMF quotas with total usable resources of barely $220 billion is inadequate to cope with another sizable international financial crisis like that of the 1997-98 Asian financial crisis or the current global financial crisis.

Since the IMF has in reality no practical leverage over the Western industrialized countries that have never borrowed from the IMF during the past 30 years, it has exercised its vaunted surveillance function in a rather skewed manner only upon developing countries while exempting major destabilizing economic policies of powerful industrialized countries such as the United States and Germany. Consequently, the IMF represents mostly the Washington consensus in international economic and financial management of developing countries, while being practically helpless in dealing with some genuine concerns of developing countries over the wayward policy stance of powerful Western industrialized countries.

As many Asian countries have realized that the IMF does not really possess adequate financial resources to assist them in the event of another Asian financial crisis, they have had to resort to massive accumulation of foreign exchange reserves themselves. Since the Asian financial crisis, the world foreign exchange reserves have increased from $1.8 trillion in 1997 to $8 trillion in 2008 including Taiwan's $312 billion. The bulk of the increase has been accounted for by Asian countries whose combined foreign exchange reserves increased from $900 billion in 1997 to $6.2 trillion in 2008, a rise of $5.3 trillion. Now, Asia accounts for almost 80% of the world foreign exchange reserves, a steep increase from 44% of the world foreign exchange reserves in 1997. Such a sharp increase in Asian foreign exchange reserves has been due both to Asia's huge current account surplus and the strong net capital inflows into Asia over the past decade.

Foreign exchange reserves are a form of self-insurance by a country against a potential future international financial crisis and, as such, they are very expensive due to their substantial negative carrying cost. Such a negative cost is caused by the fact that the cost of capital inflows into Asia significantly exceeds the returns on short-term investments such as U.S. Treasury bills in which the bulk of Asian foreign exchange reserves are held. Another economic cost of huge foreign exchange reserves held by Asian countries could result from a potential depreciation of the U.S. dollar. About 65% of all foreign exchange reserves are held in U.S. dollars, which means that about $4 trillion of Asian foreign exchange reserves are denominated in American dollars. If the dollar, which is viewed as significantly overvalued in light of both the huge current account and budget deficits of the United States, were to depreciate by 20%, the aggregate value losses for Asian foreign exchange reserves would amount to $800 billion, truly a staggering amount.

If such costly self-insurance by Asian countries through the accumulation of excessive foreign exchange reserves can be replaced by a collective insurance system in the form of an Asian Monetary Fund financed by some of these very foreign exchange reserves accumulated by Asian countries but now invested mostly outside Asia in such low-yield instruments as U.S. Treasury bills and Eurodollar CDs, the overall economic benefit to Asia would also be enormous. If the Asian foreign exchange reserves were to be reduced by 50% with the collective insurance mechanism via a new Asian Monetary Fund, the economic benefits to Asia could be the following:

Reduction of Asian foreign exchange reserves by 50%: from $6.2 trillion to $3.1 trillion
Enhanced yield from 0.3% 6-month US Treasury bill rate to 10% return on direct investment of $3.1 trillion:
9.7% x $3.1 trillion = $282 billion extra returns per year
Avoiding the loss from 20% US dollar depreciation on 65% of $3.1 trillion: $403 billion

An Asian Monetary Fund could thus provide an economic benefit of $282 billion per year for Asia, plus avoiding a potential loss of $403 billion in case of a US dollar depreciation by 20%.

Momentum Toward an Asian Monetary Fund

Already, the first step toward a closer monetary and financial cooperation among Asian countries was taken under the Chiang Mai Initiative (CMI), a framework agreement reached in 2000 on a set of bilateral currency swap arrangements (BSAs) among the 13 Asian countries of the ASEAN+3 group (the 10 ASEAN member countries plus

Japan, China and South Korea).[8] The CMI was designed to expand the previous ASEAN Swap Arrangement (ASA), by extending its coverage from the original five members to all ten members of ASEAN plus three additional non-ASEAN countries of Japan, China and South Korea, and by increasing the total size of the swap arrangements. ASA was first established by five of the ten ASEAN member countries[9] in August 1997 right after Thailand triggered the Asian financial crisis in early July 1997, and ASA was originally designed to alleviate temporary liquidity shortages among central banks of the five member countries, and the facility was extensively used.

Under the CMI, the core objective was to establish a network of BSAs among the 13 Asian countries. So far, 16 bilateral currency swap arrangements amounting to $44 billion have been concluded. Such currency swap arrangements allow the 13 Asian countries to access one another for short-term liquidity support similar to IMF financial assistance. However, the CMI is not independent from the IMF, since 80% of the amounts available under the BSAs would be disbursed only if the borrower country also agreed to an IMF program. Also, activation under the BSAs is not automatic on the request of the borrower. Activation also requires approval by the creditor country which may consider the details of the IMF program that a borrower country has agreed to adopt. In this sense, the CMI is largely a parallel line of defense to IMF financing. It is noteworthy that, despite initial high hopes, none of the BSAs have been activated since its creation.

In recognition of the structural deficiencies of the BSAs, ASEAN plus 3 agreed in 2007 to adopt "multilateralization" by converting a network of BSA bilateral contracts into a single contract informally known as a common fund. Here, multilateralization of the CMI implies collectivization on a regional basis, which is something more than bilateral and less than global. The size of the pooled reserves in the common fund was raised from the initial $80 billion to $120 billion in early 2009, with 20% provided by 10 ASEAN countries and 80% by the Plus Three countries of China, Japan and South Korea. This Multilateralized CMI (known as CMIM) will also have an independent regional surveillance unit in order to facilitate prompt activation of the CMIM and to promote objective economic monitoring and surveillance with the goal of reducing the IMF linkage. As for the reserve pool of $120 billion, however, member countries will still manage their own foreign reserves contributed to the fund, unlike the IMF which has its own funds contributed by its member countries.

Despite its potential, it is doubtful that the CMIM in its present form can be a credible regional lender to its Asian member countries so that it

can act as an effective co-insurance mechanism in a time of financial crisis. First of all, the amount is still negligible with a pool of just $120 billion. During the Asian financial crisis ten years ago, just three Asian countries—Indonesia, Thailand and Korea—borrowed about $100 billion from the IMF-organized funding sources. During the current global financial crisis, South Korea alone had to mobilize additional resources of $76 billion in the form of central bank swaps with the United States ($30 billion), China ($26 billion) and Japan ($20 billion) on top of Korea's own foreign exchange reserves of $240 billion at the time of the Lehman Brothers bankruptcy in September 2008. Furthermore, the borrowing procedure under the CMIM is rather complicated and tied with the IMF policy conditionality if the borrowing amount exceeds a certain limit.

Therefore, only a full-fledged Asian Monetary Fund can realize the true advantage of co-insurance with the attendant economic benefits to Asia. Without being constrained by the often-counterproductive IMF conditionality in a future financial crisis, Asian countries can pursue under an AMF framework appropriate economic policies that can assist them more directly rather than serving the parochial interests of the Washington consensus forced upon Asia by the IMF and the U.S. Treasury Department. The IMF has not always acted in the best interests of Asia, and it is about time that Asia should exert its economic independence from the Washington consensus by establishing an AMF. Asian countries already possess the financial means to fund an Asian Monetary Fund in view of their huge foreign exchange reserves accumulated so far.

In recent years, Asian economies have become more tightly integrated. Currently, Asian developing countries have sent more than half of their exports to other Asian countries. Asia is also the largest export market for Japan, followed by the U.S. market and the European Union market. In fact, Japan exports now more to China, Hong Kong and Taiwan than to the United States, the first such development in 130 years. Also, China replaced the United States as Korea's top export market for the first time in the modern Korean history. An Asian Monetary Fund can be a natural outcome of this trend toward closer Asian economic and financial integration. It is high time now for the Asian countries to muster the necessary political will to stand up against the expected opposition from the IMF and its controlling interests in North America and Europe by establishing their own Asian Monetary Fund.

Notes:

[1] "IMF Financial Activities – Update June 4, 2009", International Monetary Fund.
[2] "The IMF Blinks", editorial of *The Wall Street Journal*, March 11, 2004.
[3] "How U.S. Wooed Asia To Let Cash Flow In", *The New York Times*, February 16, 1999.
[4] *Ibid*.
[5] *Ibid*.
[6] "Asian Monetary Fund – More Harm Than Good?" *Asia Times Online*, September 22, 2000.
[7] C. Fred Bergsten, "Reviving the Asian Monetary Fund," *The International Economy*, November-December 1998.
[8] C. Randall Henning, "The Future of the Chiang Mai Initiative: an Asian Monetary Fund?" *Policy Brief*, Peterson Institute for International Economics, Washington, D.C., February 2009.
[9] The original agreement was signed by Indonesia, Malaysia, the Philippines, Singapore and Thailand.