
Domestic Politics and Stakeholders in the North Korean Missile Development Program

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The Democratic People's Republic of Korea (hereafter "the DPRK" or "North Korea") and its missile development program have generated international concerns for several years. Most analysts agree that the DPRK missile program is a threat to security and stability in Northeast Asia and other regions, and North Korea's missile exports are well documented. The Bush administration has accused Pyongyang of being "the world's number one merchant for ballistic missiles—open for business with anyone, no matter how maligned the buyer's intentions."²

Clearly North Korea's missile program has had an impact on international security; conversely, international variables, or changes in the international strategic environment, influence the DPRK in determining the program's scope and future development. However, the North Korean domestic political economy is also a determining factor. Missile development is technically difficult and very expensive, especially for relatively small countries like North Korea with backward or poorly performing economies. Missiles provide security benefits, at least in the short run,³ and arguably can provide economic benefits if we consider the potential foreign exchange

earnings from exports. In the DPRK case, the missile development program has tremendous distributional consequences for North Korean society, which includes a number of "stakeholders" with different preferences for the future of the missile program.

Given that Pyongyang's policymakers must consider both international and domestic politics when deciding missile development policy, predicting the future development path of the North Korean missile program is a complex task. Most analysis tends to focus on the international component of this problem, with little consideration for North Korean domestic politics and institutions. Some analysts might argue that domestic politics is irrelevant because the North Korean leadership is completely insulated from domestic pressures, or because all political and societal interests in North Korea converge on this issue. The DPRK is not a pluralistic polity; North Korean civil society is extraordinarily underdeveloped. Nevertheless, even the most authoritarian governments require a critical mass of supporters in order to remain in power and to continue programs that consume significant resources. This assumption raises key questions about the North Korean institutions and individuals that have particular

political or economic interests in the status or continuation of the missile program.

This paper identifies the main domestic “stakeholders” in the North Korean missile program, and assesses their preferences, with the objective of contributing to a better understanding of how decisionmakers in Pyongyang might proceed with DPRK missile policy. The first section will examine the historical background and political motivations behind North Korea’s missile development, and the second section will explain North Korea’s political orientation, or institutional setting. The third section will identify the main stakeholders in the program before identifying their probable preferences regarding missile development policy.

HISTORICAL CONTEXT AND MOTIVATIONS FOR DEVELOPING MISSILES

Throughout its history, the DPRK has confronted several external and internal security problems.⁴ Korea is surrounded by major powers, and the peninsula has been subject to numerous invasions. Colonialism and war during the 20th century still resonate with policymakers in Pyongyang, and the experience continues to influence the perceptions of the ruling elite and their supporters. A strong military posture and advanced weapons systems not only have helped the leadership to deal with external threats, but they have also been popular among nationalistic citizens who are constantly reminded of the potential external threats to the DPRK.⁵

U.S. military forces have been stationed in South Korea since the end of the Korean War to deter a repeat of the North Korean invasion across the 38th parallel on June 25, 1950. However, all North Koreans are taught that the United States invaded the DPRK on that day, and that the “Great Leader Marshal” Kim Il Sung repulsed the American invasion during the “victorious Fatherland Liberation War.”⁶ The North Korean media continue to provide extensive reports of the U.S. military intervention in 1950 and of the need to remain vigilant against the possibility of “another American attack.”⁷

Despite Pyongyang’s historical revisionism, the historical facts have justified acquiring the capability to strike U.S. targets in order to deter future American military intervention. At a minimum, North Korean leaders desire a strong conventional capability to achieve this objective, but weapons of mass destruction (WMD) and ballistic missiles are likely the preferred choice. During the Korean War, North Korea and China were subjected to nuclear threats by the United States, and some analysts argue that

Pyongyang’s leaders are motivated to develop nuclear weapons and long-range missiles because of this experience.⁸ This analysis does not suggest that the United States continues to threaten North Korea with nuclear weapons; nevertheless, North Korean leaders have long speculated about the utility of nuclear weapons and the costs to develop them.

The end of the Korean War in 1953 did not mean the potential for nuclear conflict in Korea had completely disappeared. Several incidents since the war could have provoked the United States into using nuclear weapons in Korea: the North Korean capture of the *USS Pueblo* in 1968, a North Korean commando raid on the South Korean presidential residence in 1968, the axe murders of two U.S. soldiers at P’anmunjom in 1976, the assassination attempt against South Korean President Chun Tu Hwan in Burma in 1983, and the standoff over Pyongyang’s refusal to permit the completion of International Atomic Energy Agency (IAEA) safeguards inspections in 1994.⁹

Given Pyongyang’s threat perception and security needs, North Korea has sought to strengthen its military capabilities by forming security alliances and by allocating a tremendous number of resources to the military sector. However, despite North Korea’s security alliances with China and the Soviet Union, DPRK leaders have been dissatisfied with North Korea’s alliance partners on several occasions. For example, even though China and the USSR provided assistance during the Korean War, Kim Il Sung desired more support than he received. Kim was disappointed that Stalin did not provide ground forces and other resources to expel the Americans from Korea, and following Soviet acquiescence during the Cuban missile crisis, North Korea quickly implemented an import substitution policy in the arms sector to reduce its dependence on foreign weapons suppliers.¹⁰ Other events that shook Pyongyang’s confidence in its allies include the normalization of U.S.-China relations, the collapse of the USSR and the socialist countries in Eastern Europe, the normalization of relations between Moscow and Seoul, and the normalization of relations between Beijing and Seoul. In sum, these events led North Korea to question the credibility of its alliance partners, and they increased Pyongyang’s perceived utility of an indigenous ballistic missile program.

Much has been written about the developmental history of the DPRK ballistic missile program, but less has been written about the decisionmaking process that will determine the future of North Korean missile development.¹¹ This policymaking process is critical because

Pyongyang's short- and intermediate-range missiles now threaten regional stability in Northeast Asia, South Asia, and the Middle East. Furthermore, North Korean long-range missiles could be capable of striking the continental United States before 2015, unless the DPRK changes its political orientation.¹²

NORTH KOREA'S POLITICAL ORIENTATION OR INSTITUTIONAL SETTING

The DPRK is an authoritarian one-party state characterized by a cult of personality built around Kim Il Sung and his son Kim Jong Il—the only leaders the country has known since it was founded in 1948. The Kim family's political legitimacy is based on Kim Il Sung's armed resistance to Japanese colonial rule (1910-1945). Although Kim did lead a small group of guerilla fighters, his military background and achievements have been exaggerated by the North Korean government and media.¹³ Despite contrary evidence, the North Korean government claims that Kim Jong Il was born at a secret military base on Mt. Paektu (Paektusan), where Kim Il Sung is said to have led the anti-Japanese insurgency.¹⁴ It is interesting to note that North Korea named the missile launched on August 31, 1998, the Paektusan-1, which can be viewed as symbolically linking the past "heroic liberation efforts" of Kim Il Sung with the future hope of building a "strong and powerful nation" under the leadership of Kim Jong Il.¹⁵

New Constitution

Following Kim Il Sung's death in July 1994, the North Korean presidency remained vacant until a constitutional revision on September 5, 1998, one day after the North Korean media speciously announced that a Korean rocket had successfully placed a satellite into earth orbit on August 31.¹⁶ The revised constitution marked Kim Jong Il's formal rise to power, established Kim Il Sung as the "eternal president of the republic," and declared that "the entire Korean people will uphold his ideas and exploits...under the leadership of the Korean Workers Party."¹⁷

While the new constitution elevated the National Defense Commission (NDC) to the highest authority over military affairs, the Supreme People's Assembly (SPA, the DPRK's legislative branch of government) also reelected Kim Jong Il chairman of the NDC. The constitutional revision in September followed an SPA election on July 26, 1998, whereby 107 active duty military members out of 687 total legislators were elected—an increase over the 62 military legislators that were in the previous SPA. In

July 1998, 443 new members were elected, and Kim Jong Il was elected by district 666, a Korean People's Army constituency.¹⁸ This large turnover of legislators in the SPA marked the beginning of Kim Jong Il's formal ascension to power after his father's death in 1994.

Separation of Powers

Nominally, North Korean policymaking and policy implementation are divided among the party, the government, and the military. However, this "separation of powers" is exploited by a small number of ruling elite who hold multiple posts across these three "dimensions of power," while manipulating electoral rules and powers of appointment to exclude any political opposition. In general, the Korean Workers Party (KWP) screens political access at all levels, beginning with party membership, which begins at the local level and is necessary for personal advancement in North Korean society.

The KWP bylaws proclaim that the party represents the interests of all the Korean people; however, stringent membership requirements exclude those opposed to the doctrines established by Kim Il Sung and Kim Jong Il. The KWP is defined as a "revolutionary Marxist-Leninist party based on *chuch'e*, which was established by the Great Leader Comrade Kim Il Sung." The party bylaws also proclaim that the KWP is to "enforce a dictatorship of the proletariat, complete the revolution, and liberate the southern half of the peninsula from American imperialist occupation forces."¹⁹

The term *chuch'e*, which literally means "self-reliance" or "independence," first appeared in North Korean politics in December 1955 when Kim Il Sung still faced threats from factional rivals, and when Kim was beginning to navigate through the turbulence of the emerging Sino-Soviet dispute. As Kim strengthened his grip on power through the 1960s, *chuch'e* ideology developed into an important part of North Korean politics and government. In 1972, *chuch'e* became part of the revised North Korean constitution, and prospective KWP members now have to display their knowledge and devotion to *chuch'e* thought in order to qualify for party membership.²⁰

According to KWP bylaws, North Korean citizens applying for KWP membership must submit an application form and receive sponsorship from two KWP members. The sponsors must have been party members for at least two years, be knowledgeable about the applicant's "social and political life," and take responsibility for the applicant. Local party committees deliberate and approve the applications on a "case-by-case basis." All party members are given a list of responsibilities such as "being loyal

to the party and leader," but there is enough ambiguity in the requirements for local party committees to have discretion over who is granted membership. Party committees exercise this discretion when considering the *songbun* or "character and background" of the individual.²¹

Because the KWP is hierarchically structured, subordinate organizations and committees implement directives from above. The Party Congress is nominally the highest decisionmaking authority in the KWP, and a party congress is supposed to be held once every five years. However, the Party Central Committee has the authority to shorten or extend the period between party congresses "as necessary." The last party congress was the Sixth Party Congress in October 1980.²² During the period between party congresses, or should a party congress fail to convene, the Party Central Committee has full authority over party affairs and organization. This authority includes the power to decide the electoral rules and to determine the number of members in the Party Central Committee.²³

The highest state authority in the DPRK is the Supreme People's Assembly; however, the SPA Presidium exercises real authority since it assumes complete SPA powers between SPA sessions, which are normally convened once or twice a year. The SPA has the power to elect and "transfer" or "remove" several officials, including the NDC chairman and other NDC members (but according to the recommendation of the NDC chairman), the SPA Presidium president and other members, the premier of the cabinet, and the chief justice. However, the SPA Presidium has the authority "to interpret" the constitution and laws, and to overturn the decisions of other state agencies that violate the constitution. SPA Presidium members serve the same term that regular SPA members do, or until the election of a new SPA Presidium.²⁴

The SPA has the authority to appoint cabinet ministers, including the minister of the People's Armed Forces. However, the National Defense Commission is the highest authority over national defense, and the NDC commands the armed forces. The NDC has the power to establish or abolish defense-related institutions, declare war, confer military ranks of general and above, and appoint or dismiss "major military cadres."²⁵ The NDC was established to assist the Party Central Committee when the DPRK Constitution was revised in 1972, but the NDC became independent from the Party Central Committee when the constitution was revised again in April 1992.²⁶

The KWP bylaws stipulate that the Party Central Committee's Military Affairs Commission is to "deliberate and decide all party military policies, increase the mili-

tary capabilities of the armed forces, organize and promote the development of defense industries, and command the armed forces."²⁷ However, the chairman's position, previously held by Kim Il Sung, has been vacant since Kim's death in July 1994.²⁸ Even though the party bylaws have not been amended, the Military Affairs Commission's authority and functions have now been superseded by those of the NDC.

The Party Central Committee nominally deliberates and decides national policies, but the KWP General Secretary, Kim Jong Il, controls the agenda and policies through his command of the KWP Secretariat and Political Bureau. The NDC and its chairman, Kim Jong Il, now control all military affairs, including national security policy and the management of defense industries. It is very unlikely that dissimilar policy preferences would emerge from these top state institutions since they are controlled by Kim Jong Il and are staffed by the same Kim loyalists.

A Power Elite

The redundancy in the North Korean system ensures control by the elite, while the KWP's "entry barriers" deny political access to those who might be opposed to the system. At the same time, state security agencies have created almost insurmountable collective-action costs for dissidents hoping to replace the regime.²⁹ The result is a stable system that has survived well beyond numerous predictions of collapse. However, political system rigidity and intolerance for political opposition mean political change is only possible through top-down directives from Kim Jong Il, or through revolution. A decade of continuous economic decline has led to speculation that regime collapse was imminent or inevitable, but the DPRK continues to survive.

North Korea began to implement very limited economic reforms in the mid 1980s, and signs of potential sweeping economic liberalization have emerged on numerous occasions. In July 2002, Pyongyang abandoned its state distribution system for rice and other commodities in favor of markets.³⁰ However, no signs of political reforms in the DPRK are apparent, despite past reports of small rebellions and some social unrest. A few military insurrections, coup d'état plans, assassination plots, and riots due to food shortages have been reported, but none of these incidents appears to have seriously threatened the regime.³¹ Nevertheless, succession can be problematic in authoritarian governments, and North Korea's personality cult could suddenly disintegrate with the abrupt or unexpected passing of Kim Jong Il.

NORTH KOREAN MISSILE STAKEHOLDERS

Policy changes have distributional effects; this maxim also applies to the DPRK, especially in reference to policy changes in its missile program or munitions industry. Major North Korean actors with a clear vested interest in the missile program can easily be identified, but given North Korea's opaqueness and undeveloped civil society, it is much more difficult to identify every domestic actor that would be affected by changes in the DPRK missile program. Therefore, for simplicity and brevity, I have identified the following entities as the program's major domestic stakeholders: the Korean Workers Party elite, the National Defense Commission, the Ministry of the People's Armed Forces and the Korean People's Army, the "nuclear coalition," the munitions industry, and a group of reformers and civilian enterprises (see Table 1).

These stakeholders have preferences about North Korean missile policy, but their preferences are not clearly expressed in public. In general, there are three methods of deriving preferences: assumption, observation, and deduction.³² I have used a combination of assumption and observation to assign or derive the preferences of the North Korean missile stakeholders. Deduction, or the use of theories to derive preferences, is more difficult to apply and has been avoided in this paper. None of the three methods is perfect, but the objective is to derive a set of plausible preferences that can help explain the behavior of actors as they try to influence policy outcomes.

Assumption is the easiest method and is commonly used in economics to describe the goal of firms as "profit maximization." This method is more useful in assigning preferences to the munitions industry and the civilian economy, in part because they more closely resemble firms. Assumption is also used in the case of the nuclear coalition, a term loosely applied to a group of individuals in various organizations that prefer nuclear weapons development.

The second method, observation (or induction), is more useful in deriving the preferences of the KWP ruling elite, the National Defense Commission, and the Ministry of People's Armed Forces and Korean People's Army. To derive the preferences of these actors, it is possible to draw upon the DPRK constitution; the KWP bylaws, treaties, and other international agreements; statements of political leaders; and other documents.

Another important element is the political access or influence that stakeholders have in policy decisions. North Korean domestic political institutions structure the way domestic preferences are aggregated into national

policy. The NDC and the KWP elite have the greatest influence over DPRK missile policy, while the influence of the Ministry of the People's Armed Forces and the Korean People's Army is probably moderate. The nuclear coalition's influence is low to moderate because this group is dispersed across different organizations and probably faces collective action problems due to the program's inherent secrecy. The munitions industry's influence is probably low to moderate, and that of the "reformers and civilian economy" is the lowest, but probably increasing because of recently implemented economic reforms.

The KWP Elite and the National Defense Commission

The KWP elite includes the KWP Central Committee's Political Bureau and Secretariat.³³ The Politbureau consists of Kim Jong Il and six close confidants as regular members and seven alternate members. Kim Jong Il is the sole member of the Politbureau Standing Committee. The Secretariat includes General Secretary Kim Jong Il and 10 secretaries with specific functional responsibilities. The KWP ruling elite and the National Defense Commission nominally have the ultimate decisionmaking authority over the DPRK missile program; however, Kim Jong Il and his close confidants hold the senior positions in both of these institutions.

The KWP elite and the NDC must consider both the domestic and international levels of politics and security when contemplating missile policy. North Korean missile development, production, deployment, and exports generate four benefits to the KWP elite and NDC: 1) security from external threats, 2) foreign exchange earnings, 3) domestic employment, and 4) nationalistic prestige for North Korean citizens, which translates into some level of support for the leadership. The Kim Jong Il regime receives the benefit of deterrence against foreign threats and a greater military capability should the DPRK decide to take aggressive action to unify Korea by force. Foreign exchange from missile exports provides the regime with fungible hard currency, and missile production provides employment for thousands of citizens.

North Korea's missile exports are a significant source of foreign exchange for the regime. According to a U.S. military source, missile export earnings were \$580 million in 2001.³⁴ The same military source claims that Pyongyang earns about \$500 million a year through narcotics exports, but according to the Bank of (South) Korea, North Korea's total exports for 2001 were only \$650 million.³⁵ Estimating the national income of countries

TABLE 1
DPRK MISSILE STAKEHOLDERS

	KWP Elite	NDC	MPAF/KPA	Nuclear Coalition?	Munitions Industry	Reformers & Civilian Economy
Main interests or policy preferences	Maintain one-party state; "complete revolution"	Defend territory of DPRK	Defend DPRK; realize business profits from military firms	Develop nuclear weapons; acquire delivery systems?	Maintain or expand production and profits (and exports)	Reform and open economy for economic recovery
Influence on policymaking	High	High	Moderate	Low to moderate	Low to moderate	Low, but probably increasing
Influence on missile policy by rank	2nd	1st	3rd	5th	4th	6th
Effects from missile program expansion	Uncertain*	Uncertain*	Gains	Greatest gains	Gains	Losses
Effects from missile program status quo	Uncertain*	Uncertain*	Unchanging or possible gains	Unchanging or possible gains	Unchanging	Losses
Effects from partial curtailment of missile program	Uncertain*	Uncertain*	Unchanging	Losses	Losses	Gains
Effects from joining MTCR	Uncertain*	Uncertain*	Unchanging	Losses	Greatest losses	Greater gains
Effects from joining MTCR and launch consortium	Uncertain*	Uncertain*	Unchanging	Greatest losses	Greater losses	Greatest gains

*The gains and losses of the KWP ruling elite and the NDC primarily depend on their perceptions of external threats. See Table 2.

with opaque planned economies is extremely difficult, and data on the transfers of advanced weapons systems are particularly sensitive. However, if these figures are roughly accurate, then missile sales could account for as much as a third of North Korea's exports.

Despite its benefits, the North Korean ballistic missile program does impose costs on the KWP elite and the NDC. Domestic groups in North Korea that would ben-

efit from the missile program's abandonment are less likely to support the regime, and international actors, primarily the United States and South Korea, react to the deployment and export of North Korean missiles. For example, South Korea has responded with its own missile development program, and Washington has ordered theater deployments of advanced U.S. weapons systems. The United States has also refused to normalize relations with Pyongyang,

maintaining economic sanctions and depriving North Korea access to international financial institutions.

While the KWP elite and the NDC must weigh the costs and the benefits in both the international and domestic realms, where this calculus will lead is not clear. Some argue that the DPRK leadership will abandon the program if the international community threatens to raise the costs for Pyongyang to continue its missile development. However, the credibility of such threats is questionable, and Pyongyang could actually accelerate the program as a countervailing move. Should the KWP elite and the NDC expect external threats to increase in the future, they would probably feel more secure with an expanded missile program.³⁶ On the other hand, a reduction in external threats would decrease the utility of ballistic missiles for the ruling elite, who would become more secure by reallocating missile development resources to the civilian economy (see Table 2). On the one hand, expanding the missile development program in a threat environment would reduce the domestic political costs for the leadership, even though it would require greater resources. On the other hand, domestic pressures to curtail the program should increase in a less threatening environment, raising the political costs of maintaining the program.

The National Defense Commission is unrivaled in the sphere of North Korean security and military affairs; but the NDC does not operate in a vacuum, nor is it com-

pletely free from domestic constraints. Its role in the missile development program is to establish all policies and deliver its policy directives to other government agencies. The Ministry of the People's Armed Forces provides information and requests to the NDC, but the ministry is merely an agent of the NDC in implementing defense policies. The command and control of ballistic missiles is under the authority of the Missile Division, General Staff Department, Ministry of the People's Armed Forces; however, little is known about the missile doctrine or operating procedures established by the NDC. The level of military support for the missile development program is unknown, but it is probably high given the prestige of high-technology weapons such as ballistic missiles. Furthermore, the number of deployed missiles in the DPRK continues to rise, which means the number of military officers who support the maintenance or expansion of North Korean missile forces is probably also increasing.³⁷

Given that the main task of the Ministry of the People's Armed Forces is to defend the DPRK, and that its secondary task is to "liberate South Korea" if Kim Jong Il gives the order, the military probably views the missile program as a net gain. The Korean People's Army is an integral part of the missile export process, and it would probably prefer that exports continue or increase. However, the Korean People's Army also has numerous firms engaged in civilian business activities, so some elements

TABLE 2
RULING ELITE THREAT PERCEPTIONS AND THE UTILITY OF BALLISTIC MISSILES

	KWP Elite	NDC	KWP Elite	NDC
Perception of external threat	Increasing external threats		Decreasing external threats	
Missile program expansion	Gains	Gains	Losses	Losses
Missile program status quo	Losses	Losses	Losses	Losses
Partial curtailment	Losses	Losses	Gains	Gains
Joining MTCR*	Greatest losses	Greatest losses	Greater gains	Greater gains
Joining MTCR and launch consortium	Greater losses	Greater losses	Greatest gains	Greatest gains

*MTCR = Missile Technology Control Regime

of the military would be dissatisfied if the missile program caused escalating tensions that damaged any lucrative side businesses.

The Ministry of People's Armed Forces, the Korean People's Army, and the Munitions Industry

The National Defense Commission exercises ultimate control over all defense industries, but it delegates the management details to the Second Economic Committee (SEC), which operates a "second economy" separate from the civilian economy.³⁸ The Second Economic Committee was established in the early 1970s to oversee the promotion of domestic defense industries, which have increasingly become greater recipients of scarce resources. It is very difficult to accurately estimate North Korea's national income, and even more difficult to determine the magnitude of the military's role in the economy; however, some reports estimate that North Korea's "second economy" accounts for about 60 to 70 percent of domestic economic output.³⁹

Missile production is difficult and expensive, and the missile sector undoubtedly accounts for a significant portion of economic activity, but the exact proportion is unclear. The Second Economic Committee's Fourth Machine Industry Bureau (also known as the "Fourth General Bureau") is responsible for the management of missile production facilities,⁴⁰ most of which are underground in the Pyongyang area and in Chagang Province, which borders on China. Given Pyongyang's policy of "military first politics," central planners and economic bureaucrats undoubtedly have been giving preferential treatment to military organizations when deciding how to allocate scarce resources.⁴¹ However, Pyongyang's missile program is more than just an end user of economic resources. Since the mid- to late 1980s, ballistic missiles, missile components, and missile technology have become major sources of foreign exchange. Pyongyang will certainly consider export earnings that would be lost if the missile program were to be scrapped. One indication of the missile program's monetary value for Pyongyang is the amount of compensation DPRK negotiators have requested during bilateral negotiations with the United States: During talks held in Pyongyang in March 1999, North Korea asked for \$1 billion a year for three years in return for halting its missile exports.⁴²

The United States has so far refused to compensate North Korea for halting missile exports, but instead has targeted DPRK entities with punitive sanctions. North

Korea's Yong'aksan General Trading Company has been subject to U.S. trade sanctions for years because of the firm's role in the export of DPRK missiles.⁴³ Furthermore, the Yong'aksan General Trading Company has been accused of being responsible for shipping other weapons and weapons-related cargo,⁴⁴ and the firm is reportedly under the Second Economic Committee's External Economic Bureau.⁴⁵ However, while the Yong'aksan General Trading Company engages in weapons exports, the company also trades civilian goods such as electronics products.⁴⁶

Details about North Korean missile exports were revealed when the North Korean ship *Ku Wol San* was detained in June 1999 by Indian customs officials who suspected the ship was transporting missiles or other weapons to Pakistan. The *Ku Wol San's* shipping documents listed the cargo as "machines and water refining equipment," and the consigner was the "Korea Chongchengang Trading Corporation." The investigation revealed that the ship had departed from the North Korean port of Namp'o, and that the "Korea Buhung Shipping Company" owned the ship. Some of the boxes in the *Ku Wol San's* cargo were marked "water filtering equipment" and "water refining equipment," but they were found to contain "a converter test stand, an inverter, electrical loading wire, and special alloy steel rods." Other boxes contained "sketches, technology transfer documents, inspection [sic] and calibration equipment, special components for the manufacture of missile subsystems, machines for manufacturing missile components, and testing or measuring equipment used for Scud or similar missiles, a hydraulic press, bending machine, theodolites, and different forms of steel and sheet metal suited for missile parts and assemblies." Indian officials concluded the shipment included information that provided a "complete technology transfer for the manufacture of the Scud-B, Scud-C, and SS-1 missile components."⁴⁷

Since Pyongyang probably fears that more missile shipments could be interdicted at sea, North Korea now ships some missile components by air. There is no clear U.S. policy to seize North Korean missile shipments, but some members of the Bush administration have made veiled threats to do so, even before the change of administrations in January 2001.⁴⁸ The administration followed through with this threat on December 10, 2002, when Spanish and U.S. naval vessels intercepted a shipment of 15 Scud missiles to Yemen.⁴⁹ The North Korean ship *Sosan* was stopped and boarded, ostensibly for being unflagged, but the ship was later released and the cargo was delivered to Yemen.⁵⁰

The North Korean government on several occasions has asserted that Pyongyang has the right to develop missiles for self-defense, and that its missile exports are not in violation of any international law or treaty. The Reconnaissance Bureau of the KPA General Staff handles the air delivery of North Korean missiles, which are loaded onto aircraft at air fields near Pyongyang. The Korea Ch'anggwang Credit Bank manages the financing and payments for DPRK missile exports, and this financial institution is also under U.S. trade sanctions.⁵¹

Other North Korean firms under the Second Economic Committee that have engaged in the missile trade include the Puhung (Buhung) Trading Company, the Ch'anggwang Trading Company, and the Yonhap Trading Company. The Yong'aksan General Trading Company and the Puhung Trading Company reportedly have strong ties with Russian firms, and Yonhap Trading has procured Japanese parts and components for North Korean munitions factories. Yonhap Trading buys the parts through companies associated with the pro-North Korean General Federation of Korean Residents in Japan.⁵² North Korea has also established front companies in Europe to deal with the missile trade. For example, Slovak authorities discovered that a North Korean couple had established a firm called "New World Trading Slovakia" in March 2001 for importing and exporting missile-related materials and components. The company's operations extended into China, Europe, the Middle East, Singapore, and Thailand.⁵³

In sum, the North Korean missile program generates foreign exchange for Pyongyang, but proliferation concerns for much of the world. However, the missile program also employs a large number of people in the DPRK, and many of these people are loyal supporters of the regime. It would be difficult to estimate the number of personnel engaged in the procurement of inputs, missile systems design, testing, production, deployment, maintenance, and exports; nevertheless, the number must be substantial. Those employed in the missile development program must be an important part of the ruling elite's constituency since the military received the highest wage increase under the economic reforms that were implemented in July 2002.⁵⁴

The Nuclear Coalition

Another group that could influence the future of the DPRK missile program is a loose coalition of individuals with an interest in developing and deploying nuclear weapons. These individuals—such as scientists, engineers, and military personnel—could exert influence in their re-

spective organizations to promote the deployment of nuclear-capable long-range ballistic missiles. But it is unclear whether the coalition would prefer an expanded civilian nuclear power program to a nuclear weapons program, or if it could be swayed to support a civilian nuclear energy program such as represented by the light water reactor project under the Agreed Framework.

North Korea has maintained a nuclear research center in Yongbyon-kun, North P'yong'an Province, since 1964. This research center is one of four organizations under the General Bureau of Atomic Energy Industry, which is under control of the cabinet. The other three organizations under the general bureau are the Isotope Application Committee, the Atomic Energy Committee, and the Pyongyang Atomic Energy Academy.⁵⁵ Little is known about these latter three organizations, but much has been written about the Yongbyon Nuclear Research Center, which became the focus of intense international scrutiny following inspections by the IAEA in 1992 and 1993. North Korea's nuclear weapons program is believed to be managed by the 5th Machine Industry Bureau, under control of the Korean Workers Party.⁵⁶ However, ultimate control of the nuclear weapons program is in the hands of NDC Chairman Kim Jong Il. There has been much speculation about whether North Korea would allow the IAEA to complete inspections that began in 1992; however, at the conclusion of Japanese Prime Minister Junichiro Koizumi's visit to Pyongyang on September 17, 2002, North Korea and Japan issued a joint statement declaring that "Both sides affirmed the pledge to observe all the international agreements for a comprehensive solution to the nuclear issue on the Korean Peninsula."⁵⁷

Despite the optimism after Koizumi's Pyongyang visit, the situation surrounding North Korea's nuclear program began to deteriorate rapidly following Assistant Secretary of State James Kelly's visit to Pyongyang in October 2002. Kelly told his Korean hosts that Washington was aware of a secret uranium enrichment program, and the North Korean delegation acknowledged its existence.⁵⁸ The U.S. responded in November by announcing the suspension of heavy fuel oil shipments, as required under the Agreed Framework.⁵⁹ North Korea then expelled IAEA inspectors in December, and announced its immediate withdrawal from the NPT on January 10, 2003.⁶⁰ Unless these developments are reversed, the nuclear weapons advocates in Pyongyang will get their nuclear bombs, and their influence will gain momentum. In April 2003, North Korean officials began to say that a "strong physical deterrent" is necessary to avoid war on the Korean pen-

insula, but in June 2003, a Korean Central News Agency editorial declared that “if the U.S. keeps threatening the DPRK with nukes instead of abandoning its hostile policy toward Pyongyang, the DPRK will have no option but to build up a nuclear deterrent force.”⁶¹ It is still unclear whether the officials implied a “nuclear deterrent,” but North Korea has asserted it has a right to develop nuclear weapons for self-defense. In sum, if North Korea assembles a nuclear arsenal, the nuclear coalition would certainly prefer a robust missile program to complement a nuclear weapons arsenal.

Reformers and the Civilian Economy

North Korea has initiated widespread economic reforms in the past, only to retreat before they could be implemented. In the early 1970s, the DPRK expanded trade and used debt financing to modernize factories, but balance of payments problems forced Pyongyang to default on its loans.⁶² The DPRK passed a joint venture law in 1984, but direct foreign investment was insufficient. Following the collapse of the Soviet Union and the socialist countries in Eastern Europe, North Korea experienced a leadership transition and then severe flood damage and poor food production. Consequently, the leadership may have been too insecure to risk implementing economic reforms until recently.

During his rise to power in 1998, Kim Jong Il approved a package of economic reforms and replaced 16 of the country’s 23 main economic bureaucrats.⁶³ However, Kim was hesitant to implement the reforms because of the perceived risks in the wake of the 1997-1998 East Asian financial crisis. In the spring of 2002, the North Korean government sent hundreds of bureaucrats throughout the country to inform managers about the reforms,⁶⁴ and the reforms were finally implemented in July 2002.⁶⁵ Economic policy reforms have included the lifting of price ceilings on certain commodities, including rice, and an adjustment of the exchange rate to more accurately reflect the value of the North Korean won. The large devaluation of the currency indicates that North Korea probably is seeking to open its economy with the hope of making North Korean products price-competitive in the international market.

Although the government has lifted price controls, devalued the currency, and changed microeconomic incentives for firms and individuals, North Korea desperately needs foreign capital, technology transfers, and energy assistance to obtain economic recovery. Access to international financial institutions would help alleviate some

of these problems, but U.S. law requires Washington to veto North Korean entry because Pyongyang is on the State Department’s list of states that sponsor international terrorism. Since Pyongyang has failed to receive sufficient inflows of capital, technology, and energy, many people now consider the reform effort a failure.⁶⁶ However, if the reform process eventually does succeed, it will almost certainly increase the societal position and influence of firms and individuals in the civilian economy. This sector would benefit if North Korea were to abandon its ballistic missile program in exchange for entry into international financial institutions and for integration into the world economy. However, political access for actors in the civilian economy is limited; therefore, their influence on missile and security policies is also limited.

SPACE LAUNCHES AND KOREAN NATIONALISM

In addition to providing concrete assets to the Pyongyang leadership, the missile program also affords intangible political benefits beyond the realms of security and economics. In particular, the Paektusan-1 missile launch in August 1998 has been widely publicized in the DPRK as part of a peaceful space program—which North Koreans view with a strong sense of national pride—even though the launch failed to place a small satellite, Kwangmyongsong-1, into earth orbit.⁶⁷ Almost all countries have a legitimate interest in acquiring satellites or access to satellites and related technologies, including the DPRK. And while a satellite launch capability (or North Korean satellites launched on foreign rockets) would satisfy Pyongyang’s desire for the technical benefits of satellites, abandonment of the space program would eliminate the sense of national pride that comes with independent space launches.

North Korean nationalism and the perceived links between Kim Jong Il and the space program are not trivial. In 1998, the Kim Jong Il regime was ushered in with a new state ideology based upon building a *kangsongdaeguk*, a “strong and powerful country.” This term first appeared in reference to Kim Jong Il’s providing “on-the-spot guidance” during a visit to Chagang Province in early 1998,⁶⁸ and then the term came into widespread use in late August 1998.⁶⁹ The concept of *kangsongdaeguk* has not replaced *chuch’e*, but in practical terms, it has now become the predominant theme in the regime’s management of domestic affairs.

The concept of building a *kangsongdaeguk* has three elements. In order to become strong and powerful, according to the regime, North Korea must be strong in “politi-

cal ideology, military capabilities, and economic capacity." The leadership apparently believes that *chuch'e* has instilled in the people a strong political ideology, and that the country has acquired the military capabilities to be considered strong and powerful.⁷⁰ However, the nation's economic performance is admittedly inadequate,⁷¹ and the leadership seems to have a clear view of the linkages between security and economics given a Korean Central News Agency commentary on June 9, 2003, that said Pyongyang desired nuclear weapons so that it could cut its conventional military and allocate more national resources to the economy.⁷²

In general, the concept of *kangsongdaeguk* provides North Koreans with hope for the future, and their support of Kim Jong Il and the KWP is necessary if this hope is ever to be fulfilled. The ideology is directly linked to Kim Jong Il, the man many hope will lead the country out of a backwards economy. Much has been written about Kim Jong Il's interest in information technologies and his daily Internet surfing, and Kim's political future could depend on North Korea's development of high technology. North Korea has targeted computer software and high technology as the keys to economic recovery and growth, and the space program is a part of the high-tech sector. In fact, the North Korean media have publicized space launches as an indication of national economic prowess.

For weeks after the August 1998 launch, DPRK print and broadcast media published stories about the basic technical requirements for satellite launches, as well as the human and economic resources needed to create and maintain a space program infrastructure. For example, on September 16, 1998, the *Rodong Sinmun*, the official daily of the KWP, listed a number of items that comprise the "on-the-ground infrastructure" in the North Korean space program, and concluded that only a few countries are capable of creating such an infrastructure. The article also claimed this capability indicated that the DPRK is a formidable economic power. Even more noteworthy is that the article began with the following quote from Kim Jong Il: "In order to bring the nation's science and technology up to the world level, we have to accept science and technology (transfers) while developing our own. Then the people's economy must actively absorb this science and technology."⁷³

The North Korean press also reported that in September 1998 citizens were calling from around the country to describe their sightings of the Kwangmyongsong-1 satellite. North Koreans were described as having expressed strong emotions and great national pride when seeing the

satellite in the sky. A man in Pyongyang reportedly said that "the world should take note of North Korea's satellite, which is a mighty symbol of a strong and powerful country under *chuch'e*." Another citizen said that "the whole world will be envious now that it has seen the brilliant future for our strong and powerful country."⁷⁴ The North Korean media also emphasize that the space program's success is a direct result of Kim Jong Il's interest and leadership in rocket development since the 1980s.⁷⁵

CONCLUSION

The DPRK has long had the motivation to develop ballistic missiles. The bitter history of colonialism and war and the lack of confidence in Pyongyang's security alliance partners have driven the North Korean leadership to allocate a tremendous number of resources to its missile program. The missile program has been a serious concern to the United States, the Republic of Korea and to U.S. allies because of Pyongyang's past behavior, its commitment to reunify Korea under the rule of the Korean Workers Party, and its willingness to export missiles and missile-related technologies around the world. The continental United States is not yet within the range of North Korean missiles, but the U.S. intelligence community estimates that the DPRK could deploy an ICBM by 2015 unless Pyongyang changes its "political orientation."

The DPRK's political system is opaque and North Korea's civil society is underdeveloped. However, existing domestic interest groups or stakeholders have vested interests in the North Korean missile program. On the surface, those groups favoring continued missile development would appear to have greater influence over policy, but recent developments in North Korea indicate that policy influence could be increasing for groups that would benefit from curtailment of the missile program. Economic reforms will strengthen reformers and actors in the civilian economy, which could present an important opportunity for the United States to reach a negotiated agreement to end North Korea's ballistic missile program.

The Korean Workers Party elite and the National Defense Commission have the greatest influence over missile development policy, but the absolute gains or losses for these two stakeholders are uncertain with any policy change because these groups are subject to both external and domestic pressures. If external threats increase, the ruling elite will prefer an expansion of the missile program, but in a less threatening world, the ruling elite will likely prefer program reductions, reallocating missile resources to the civilian economy.

Finally, the North Korean leadership has exploited the national pride generated by space launches. The attempted satellite launch in August 1998 was symbolic of Kim Jong Il's domestic high-tech image, which the regime has promoted as the means to achieve economic recovery. An expansion of the North Korean missile program will require a greater number of resources—at the expense of the civilian economy. Therefore, any future flight-tests associated with an expansion of the ballistic missile program would most likely come in a space-launch configuration as an effort to increase sources of domestic political support.

¹ The views in this paper do not represent those of the Center for Nonproliferation Studies or the Monterey Institute of International Studies. I would like to thank Gitty Amini, Michael Barletta, Eric Crodly, Jody Daniel, Jeffrey Fields, Stephan Haggard, Gaurav Kampani, Ibrahim al-Marashi, Timothy McCarthy, Victor Mizin, Mari Sudo, and Sebnem Udem for their comments. Of course, I am solely responsible for all errors and shortcomings.

² Condoleezza Rice, National Security Council Advisor, "Remarks to the American Conservative Union Political Action Conference," Arlington, Virginia, January 31, 2002, Federal News Service, in Lexis-Nexis, <<http://www.lexis-nexis.com>>. John Bolton, U.S. Under Secretary of State for Arms Control and International Security, made similar remarks in Seoul on August 29, 2002 when he said, "In addition to its disturbing weapons of mass destruction activities, North Korea also is the world's foremost peddler of ballistic missile-related equipment, components, materials and technical expertise." See Sang-Hun Choe, "Negotiator Says N. Korea Well-Armed," *Washington Post*, August 29, 2002, <<http://www.washingtonpost.com>>; Don Kirk, "Senior U.S. Official Underscores Bush's Criticism of North Korea," *New York Times*, August 29, 2002, <<http://www.nytimes.com>>; Martin Nesirky, "U.S. Official Calls N. Korea 'Peddler' of Missile Technology," *Washington Post*, August 30, 2002, p. 17.

³ In comparison with a state's security status when it initially acquires ballistic missiles, an arms race or deployed missile defenses arguably could reduce or even worsen a state's security in the long run.

⁴ Without making normative judgments, Pyongyang faces a number of security issues that are independent of the regime's domestic policies.

⁵ Analysts often ignore or underestimate the lingering psychological effects from conflicts that occurred centuries ago but that are still prominent in the curricula of both North and South Korea. Most notable are probably the so-called "Hideyoshi invasions" in 1592 and 1597. Korean Admiral Lee Su Shin is credited with having saved Korea because of his naval victories over Japanese forces, and Lee is still one of Korea's most popular national heroes. For a brief review of the Hideyoshi invasions, see Carter J. Eckert et al., *Korea Old and New: A History* (Seoul: Ilchokak Publishers, 1990), pp. 143-148.

⁶ For example, see Korean Central News Agency, "Kim Il Sung's Exploits in War Eulogized," July 24, 2002, <<http://www.kcna.co.jp>> and Korean Central News Agency, "Kangch'ol'ui Ryongjang Kim Il Sung Chusog'ui T'ag'wolhan Ryonggun'opchok," July 24, 2002, <<http://www.kcna.co.jp>>.

⁷ For example, see Kim Hye-song, "Extremely Evil Instigator of Korean War," *Rodong Sinmun*, June 25, 2002, p. 6, in "DPRK Decries US as 'Extremely Evil' Provoker of Korean War," FBIS Document KPP20020705000041; Korean Central News Agency, "Koreans Called Upon to Frustrate U.S. Moves for Aggression and War," June 25, 2002, <<http://www.kcna.co.jp>>; Korean Central News Agency, "Mijeui Chimnyakkwa Chonjaengch'aektong'ul Tanhoi Chitpushija/Rodong Sinmun Sasol (Chonmun)," June 25, 2002; Korean Central News Agency, "Provocation of Korean War," June 24, 2002; and Korean Central News Agency, "Chosonjonjaeng'ui Tobalja," June 24, 2002, <<http://www.kcna.co.jp>>.

⁸ In the early 1950s, several American military and political leaders believed nuclear weapons offered an opportunity to end the war in Korea quickly. Some examples of North Korea's perceived nuclear threats from the United States during the war include President Truman's press conference on November 30,

1950, when he stated that the use of nuclear weapons in Korea was under consideration; General MacArthur's request for 34 atomic bombs to use in Korea and Manchuria; and statements by candidate and President Eisenhower and others in his administration about using nuclear weapons to end the Korean War. See Bruce Cumings, *The Origins of the Korean War: Volume II, The Roaring of the Cataract 1947-1950* (Princeton: Princeton University Press, 1990), p. 750; Roger Dingman, "Atomic Diplomacy During the Korean War," *International Security* 13 (Winter 1988/1989), pp. 65-66; Rosemary J. Foot, *The Wrong War: American Policy and the Dimensions of the Korean Conflict, 1950-1953* (Ithaca: Cornell University Press: 1985); Peter Hayes, *Pacific Powderkeg: American Nuclear Dilemmas in Korea* (Lexington, MA: Lexington Books, 1991), pp.9-11; Stanley Weintraub, *MacArthur's War: Korea and the Undoing of an American Hero* (New York: Simon & Schuster, 2000), pp. 257-259 and 263-264.

⁹ The past deployment of U.S. nuclear weapons in South Korea increased the likelihood of use in the case of conventional conflict on the peninsula. For example, see Selig S. Harrison, *Korean Endgame: A Strategy for Reunification and U.S. Disengagement* (Princeton: Princeton University Press, 2002); Peter Hayes, *Pacific Powderkeg: American Nuclear Dilemmas in Korea* (Lexington, MA: Lexington Books, 1991).

¹⁰ In December 1962, the Central Committee of the Korean Workers Party adopted "four policy lines" to: 1) improve political and technical discipline in the military, 2) modernize the military, 3) "arm" all the people with "class conscientiousness and military technology" and 4) fortify the "whole country." See Chang Myong Sun, *Pukhan'gunsayon'gu* (Seoul: P'albog'won, 1999), pp. 118-119; Chang Chun Ik, *Pukhan Haek-Missile Chonjaeng* (Seoul: Somundang, May 1999), p. 246; Republic of Korea (ROK) Ministry of Unification, *Pukhan Kaeyo 2000* (Seoul: Ministry of Unification, December 1999), pp. 160-161 and 262-263.

¹¹ For example, see Joseph S. Bermudez Jr., "A History of Ballistic Missile Development in the DPRK," Center for Nonproliferation Studies Occasional Paper No. 2, November 1999, <<http://cns.miis.edu/pubs/opapers/op2/index.htm>> or Chang Chun Ik, *Pukhan Haek-Missile Chonjaeng* (Seoul: Somundang, May 1999), pp. 243-325.

¹² National Intelligence Council, "Foreign Missile Developments and the Ballistic Missile Threat Through 2015," December 2001, <http://www.cia.gov/nic/pubs/other_products/Unclassifiedballisticmissilefinal.htm>.

¹³ For example, see Dae-Sook Suh, *Kim Il Sung: The North Korean Leader* (New York: Columbia University Press, 1988) and Chang Chun Ik, *Pukhan Inmin'gundaesa* (Seoul: Somundang, 1991).

¹⁴ *Kim Seinichi Daizukan*, June 20, 2000, in "DPRK Leader Kim Chong-il's Life, Character Examined—Photos," FBIS Document KPP20020501000062.

¹⁵ For example, see Song Mi-ran, "Partisan's Son," *Nodong Sinmun*, October 6, 2002, p. 2, in "DPRK Hails Leader as Partisan's Son, Mentions Son-to-Grandson Succession," FBIS Document KPP20021011000026.

¹⁶ Korean Central News Agency, "DPRK Socialist Constitution," September 5, 1998; Korean Central News Agency, "Chosonminjujuuinmin'gonghwa'guk Sahoejuuihonbop," September 5, 1998; Korean Central News Agency, "Successful Launch of First Satellite in DPRK," September 4, 1998; Korean Central News Agency, "Uri Nara'eso Chot In'gongjiguwisong Songgwajog'uro Palsa/Chosonjung'ang'ongshinsa Podo," September 4, 1998, <<http://www.kcna.co.jp>>.

¹⁷ See DPRK Constitution in Ch'oe Chong Ko, *Pukhanbop* (Seoul: Pag'yongsa, 2001), pp. 80, 95.

¹⁸ The election results were announced on the following day, which is the anniversary of the signing of the Korean War Armistice. The Korean Central News Agency carried a report in Korean about foreign residents in North Korea participating as observers and their impression of the "political freedoms North Koreans possess through such free and democratic elections." However, the agency carried no such report in English. See Korean Central News Agency, "Son'gojang Ch'amgwanhan Oe'gug'inbanhyang," July 27, 1998, <<http://www.kcna.co.jp>>. For reports of the election and results, see Shin Yong-bae, "Elections Signal Change in North Korea Policy on South," *Korea Herald*, July 29, 1998, in KINDS; Kim Yong Shik, "Ch'oegoinminhoeui Taeuiwon Son'go Kyolgw Chongbu Punsok," *Segye Ilbo*, July 29, 1998, in KINDS; Im Ui Chul, "Puk Taeuiwo 64% 'Mulgal'i,'" *Hankyoreh Shinmun*, 29 July 1998, in KINDS, <<http://www.kinds.or.kr>>; Korean Central News Agency, "Korean Voters Participate in SPA Election," July 27, 1998; Korean Central News Agency, "Kim Jong Il Elected to SPA," July 27, 1998; Korean Central News Agency, "100 Percent Vote for Candidates," July 27, 1998; Korean Central News Agency, "99.85 P'uroga Son'goc'h'amga, 100 P'uroch'ansong't'up'yo, 687Myong'ui Taeuiwonson'go," July 27, 1998, <<http://www.kcna.co.jp>>.

¹⁹ ROK Ministry of Unification, *Pukhan Kaeyo 2000* (Seoul: Ministry of Unification, December 1999), pp. 629-630.

²⁰ *Chuch'e* has a strong appeal for Koreans because it was presented as the opposite of, or as an alternative to *Sadaejui* (serving the great) or "toadyism," which Korea practiced under the hierarchical Confucian world order. *Chuch'e* was also a rejection of Japanese colonialism, which made it difficult for any domestic political opponents to argue against Kim Il Sung's ideas. For a brief introduction to *chuch'e* ideology, see ROK Ministry of Unification, *Pukhan Kaeyo 2000* (Seoul: Ministry of Unification, December 1999), pp. 78-85 and Dae-Sook Suh, *Kim Il Sung: The North Korean Leader* (New York: Columbia University Press, 1988), pp. 301-313.

²¹ North Korean security organizations maintain extensive records on all citizens in order to classify or rank each individual's loyalty to the Kim family regime. See Helen-Louise Hunter, *Kim Il-sung's North Korea* (Westport, Connecticut: Praeger, 1999) and Kongdan Oh and Ralph C. Hassig, *North Korea Through the Looking Glass* (Washington, DC: Brookings Institution Press, 2000), pp. 133-137. For a defector's brief description of personal responsibility and joining the KWP, and a description of college entrance and *songbun* in North Korea, see Ko Yong Hwan, *Kim Il Sung'ui'kkum, Seoul'eso Iruojida* (Seoul: Chosonilbosa, 2000), pp. 90-94.

²² The first five Party Congresses were held in August 1946, March 1948, April 1956, September 1961, and November 1970. See ROK Ministry of Unification, *Pukhan Kaeyo 2000* (Seoul: Ministry of Unification, December 1999), pp. 105-111.

²³ *Ibid.*, Korean Workers Party Bylaws, pp. 640-642.

²⁴ See DPRK Constitution in Ch'oe Chong Ko, *Pukhanbop*, pp. 87-90, 110-113.

²⁵ *Ibid.*, pp. 88, 110-111.

²⁶ ROK Ministry of Unification, *Pukhan Kaeyo 2000* (Seoul: Ministry of Unification, December 1999), p. 150.

²⁷ *Ibid.*, p. 641.

²⁸ *Ibid.*, p. 152.

²⁹ For a description of the DPRK's security agencies and social control, see Kongdan Oh and Ralph C. Hassig, *North Korea Through the Looking Glass* (Washington, DC: Brookings Institution Press, 2000), pp. 127-147.

³⁰ North Korea also reformed its financial system, replaced its currency, reformed its tax system, and changed wage incentives. Pyongyang sent hundreds of economic specialists to factories, industrial sites, and cooperative farms around the country from early 2002 to inform people about the reforms. Price increases were supposed to trigger supply responses, but bottlenecks in transportation and energy and other problems resulted in more inflation than increased supply. See Ch'oi Ch'ok Ho, "Puk, Chuyo San'opch'e'e 'Kyongjejidowon' Subaengmyong P'a'gyon," *Yonhap News Agency*, July 25, 2002, <<http://www.yonhapnews.co.kr>>; Don Kirk, "North Korean Ending Rationing, Diplomats Report," *New York Times*, July 20, 2002, <<http://www.nytimes.com>>; Kang Ch'ol Hwan and Kim Mi Yong, "Puk Se'gumje 28 Nyonman'e Puhwal," *Chosun Ilbo*, July 25, 2002, <<http://nk.chosun.com>>; Kang Chol-hwan, "North Korea Undergoing Economic Reform," *Chosun Ilbo*, July 25, 2002, <<http://english.chosun.com>>; Brent Choi, "N.K. Enforces Reform in Payrolls, Consumer Price," *Joongang Ilbo*, July 12, 2002, <<http://english.joins.com>>; You Kwang-jong, "North Korea Abolishes Food Rationing System," *Joongang Ilbo*, July 19, 2002, <<http://english.joins.com>>; Yu Kwang Chong, "Pukahn, Shingnyang Pae'gupche Kongshikp'yaji," *Joongang Ilbo*, July 19, 2002, in KINDS, <<http://www.kinds.or.kr>>; and Yu Kwang Chong, "Pukhan, Dollar Hwan'yul Taep'ok Hyoshillhwa," *Joongang Ilbo*, 24 July 2002, in KINDS, <<http://www.kinds.or.kr>>.

³¹ For example, 120 soldiers were reportedly executed in August 1996 for having participated in an insurrection that was a response to a shortage of food and other supplies. See Lee Yong Chong, "Najin-Sonbong Kump'oktong 1 Paek 20 Myong Ch'ohyong/8 Wolmal Torogongsa Tong'won 200 Myong," *Joongang Ilbo*, October 2, 1996, in KINDS, <<http://www.kinds.or.kr>>. There are unsubstantiated reports of several assassination plots and insurrections during the early 1990s. For example, see Chi Hae Pom, "'Pug'e Kim Jong Il Amsaldan Issotta'/Il Shisaju'ganji [Sapio]P'ongno," *Chosun Ilbo*, June 20, 1997, in KINDS, <<http://www.kinds.or.kr>>; Kim Kwan Myong, Kim Pyong Ch'an, Lee Pyong Kyu, and Hwang Sang Chin, "Pombo, Ch'oe'gun Kwisun 5 Myong Chipjung Interview: 3 (Yuksongjung'on Pukhan'un Chi'gum)," *Hankook Ilbo*, February 16, 1996, in KINDS, <<http://www.kinds.or.kr>>.

³² Jeffrey A. Frieden, "Actors and Preferences in International Relations," in David A. Lake and Robert Powell, eds., *Strategic Choice and International Relations* (Princeton: Princeton University Press, 1999), pp. 39-76.

³³ The KWP Central Committee has 145 members and 103 alternate members.

The Central Committee consists of the Political Bureau and its Standing Committee (Kim Jong Il is the lone member), the Secretariat, and the Inspection Committee. See "Pukhan Net Pukhanbaekkwa: Tangjung'ang'wiwonhoe," *Joongang Ilbo*, December 21, 2000, <<http://nk.joins.com>>.

³⁴ Yoshiharu Asano, "N. Korea Missile Exports Earned 580 Mil. Dollars in '01," *Yomiuri Shimbun*, May 13, 2003, in Lexis-Nexis, <<http://www.lexis-nexis.com>>; Jiji Press Ticker Service, "N. Korea Has Up to 750 Ballistic Missiles: U.S. Source," May 12, 2003, in Lexis-Nexis, <<http://www.lexis-nexis.com>>; Yu Yong-won, *Chosun Ilbo*, May 13, 2003, in "USFK Details DPRK's Drug, Missile Exports, Counterfeit Bills," FBIS Document KPP20030514000056.

³⁵ Bank of Korea, "2001 Nyon Pukhan GDP Ch'ujong Kyolgwa [2001 North Korea GDP Estimate Results]" May 2002, <<http://www.bok.or.kr>>.

³⁶ Some argue that missile defense systems could nullify all of the missile program's benefits for the KWP elite and NDC, but the technologies are yet unproven and missile defense is a very complex issue beyond the scope of this paper.

³⁷ In March 2001, the South Korean Ministry of National Defense asserted that North Korea had deployed "about 500 Scud missiles and 27 mobile launchers." But in May 2003, a U.S. military official claimed that North Korea had 600-750 ballistic missiles, including 175-200 Nodongs. See Yu Yong-won, *Chosun Ilbo*, May 13, 2003, in "USFK Details DPRK's Drug, Missile Exports, Counterfeit Bills," FBIS Document KPP20030514000056; Kang Ho Shik, "Puk, Missile Chungga, Chollyok Chonjinbaech'i Anp'akk," *Kyungnyang Shinmun*, March 5, 2001, p. 3, in KINDS, <<http://www.kinds.or.kr>>. An anonymous "high-ranking South Korean government official" also revealed in March 2001 that North Korea had deployed about 100 Nodong missiles, but the South Korean Ministry of National Defense later denied this report. See Yu Yong Won, "Nodong 1 Ho Missile Puk, 100 Yobal Paech'i/Mi, Shimgakhan Uryo Pyomyong," *Chosun Ilbo*, March 2, 2001, p. 1, in KINDS, <<http://www.kinds.or.kr>>; *Chosun Ilbo*, March 2, 2001, in "ROK Official Cites US Sources: DPRK Deploys 100 Nodong-1 Missiles Since 1998," FBIS Document KPP20010302000010; and Chong Ch'ung Shin, "Kukpangbu 'Puk Missile Chunggangbaech'i Sashilmu'gun," *Munhwa Ilbo*, March 2, 2001, p. 2, in KINDS, <<http://www.kinds.or.kr>>. In March 2002, General Thomas Schwartz, Commander in Chief U.S. Forces, Korea, told the U.S. Senate that North Korea's "ballistic missile inventory included over 500 Scuds of various types." See "Statement of General Thomas A. Schwartz, Commander in Chief United Nations Command/Combined Forces Command & Commander, United States Forces Korea, before the 107th Congress Senate Armed Services Committee, March 5, 2002, p. 8, <http://www.senate.gov/~armed_services/statemnt/2002/Schwartz.pdf>. However, during an April 2002 speech at a Korea Institute for Defense Analyses seminar in Seoul, Lieutenant General Daniel R. Zanini, Commander Eighth United States Army, said that North Korea's missile inventory "approached 1,000." This figure is imprecise and was widely misquoted in the South Korean press; however, Zanini's statement is indicative of the DPRK's increasing missile inventory. See "US Commander Warns of NK's Enhanced Missile Capabilities," *Korea Times*, April 30, 2002, <<http://www.koreatimes.co.kr>>; "North Korea Possesses 1,000 Ballistic Missiles Says Zanini," *Joongang Ilbo* (English Edition), May 1, 2002, in KINDS, <<http://www.kinds.or.kr>>; Yonhap News Agency, April 29, 2002, in "Eighth US Army Commander Reportedly Notes DPRK's 'Big Increase' in Missiles," FBIS Document KPP20020429000092.

³⁸ Second Economic Committee Chairman Kim Ch'ol Man is also a member of the NDC.

³⁹ Ha T'ae Won, "Puk Kunsusan'op Hyonjuso/Mugi Taebubun Tokchasaengsan," *Donga Ilbo*, February 5, 2001, p. 3, in KINDS, <<http://www.kinds.or.kr>>; Kim Kwang In, "'Pyongyang Twaejigongjang' eso Missile Saengsan," *Chosun Ilbo*, February 11, 2001, <<http://nk.chosun.com>>.

⁴⁰ For a description of the Second Economic Committee's organization, see Ha T'ae Won, "Puk Kunsusan'op Hyonjuso/Mugi Taebubun Tokchasaengsan," *Donga Ilbo*, February 5, 2001, p. 3, in KINDS, <<http://www.kinds.or.kr>>; Joseph S. Bermudez, Jr., *The Armed Forces of North Korea* (New York: I. B. Tauris, 2001), pp. 45-54.

⁴¹ The term "military first politics" (*Son'gunjongch'i*) first appeared in July 1997. For a brief description of the DPRK's "military first politics," see T'ongil Kyongje, July 1, 2002, pp. 28-36, in "Significance of DPRK Munitions Industry Viewed—Graphics," FBIS Document KPP20020808000110; So Chu Sok, "Pukhan'ui San'op(X): Kunsu San'op," *T'ong'il Kyongje*, July/August 2002, pp. 28-30; Ko Yuhwan, *Kukpang Journal* (National Defense Journal), September 1, 2001, pp. 39-43, in "DPRK's 'Military First' Politics Compared With PRC 'Prosperity'

Theory," FBIS Document KPP20010927000093; Ko Yu Hwan, "Pukhan'ui Son'gunjongch'iwa Chunggug'ui Sonbongnon," *Kukpang Journal*, September 1, 2001, <<http://www.dapis.go.kr/journal/journal.html>>; Korean Central News Agency, "Rodong Sinmun on Kim Jong Il's Election as NDC Chairman," April 9, 2001, <<http://www.kcna.co.jp>>; Korean Central News Agency, "Widaehan Ryongjang'ul Kukpang'ui Suwi'e Moshin Uri Konghwa'gug'un Kumsongch'olbyok/Rodongsinmun Sasol," April 9, 2001, <<http://www.kcna.co.jp>>.

⁴² The cash was requested to halt exports, not to abandon the program. See, Kim Chin, "Pukhan-I'guk Missile Hoedam 7 Wol 10 Il Chaegae," *Joongang Ilbo*, June 30, 2000, p. 2, in KINDS, <<http://www.kinds.or.kr>>.

⁴³ To be precise, the Yong'aksan Machinery Equipment Export Company, a subsidiary of the Yong'aksan General Trading Company, is probably the firm that is directly involved in the exports of missiles. See Lee Chae Sung, "Pukhan Oehwabor'iondam Muyeoksangsa 140 Kae," *Segye Ilbo*, January 27, 1993, p. 12, in KINDS, <<http://www.kinds.or.kr>>. According to the (South) Korea Trade-Investment Promotion Agency, the Yong'aksan Machinery Equipment Export Company exports lathes. See Ha Sung Pom, "Pukhan'ui Kiop List," Korea Trade-Investment Promotion Agency, June 2002, <<http://www.kotra.or.kr>>. In 2001, the Yong'aksan General Trading Company participated in a Beijing trade show for North Korean products, which indicates the company engages in the trade of civilian products as well. See Song Tae Su, "Puk, Beijing'so Tae'gyumo Sangp'umjon," *Hankook Ilbo*, August 4, 2001, p. 2, in KINDS, <<http://www.kinds.or.kr>>.

⁴⁴ For example, the Yong'aksan General Trading Company is reportedly responsible for the export of ammonium chlorate, which can be used as a rocket propellant, to Pakistan in April 1996. See Glenn Schloss, "North Korean Firm Behind Shipment," *South China Morning Post*, December 13, 1996, p. 4.

⁴⁵ Lee Kyo Kwan, "Puk Missile Such'ul Oddohke? Missile Momt'ong-Haekshimbup'um 'Pulli Susong,'" *Chosun Ilbo*, March 6, 2002, p. 54, in KINDS, <<http://www.kinds.or.kr>>; Lee Kyo-kwan, "NK Missile Exports Diversified in Technique," *Chosun Ilbo*, March 5, 2002, <<http://english.chosun.com>>; "Pukhan/'Nodongdang Che 2 Kyongjewe Mugisuch'ul Suib'ok Dollar Tokchom," *Hankook Ilbo*, February 21, 1999, p. 2, in KINDS, <<http://www.kinds.or.kr>>.

⁴⁶ Ha Sung Pom, "Pukhan'ui Kiop List," Korea Trade-Investment Promotion Agency, June 2002, <<http://www.kotra.or.kr>>.

⁴⁷ Custom House Kandla, "Alleged Unauthorized Importation of Ammunition in Form of Parts of Surface Missiles & Machines to Manufacture Such Missiles after Misdeclaring (sic) These Machines as Water Refining Equipment - On Vessel M.V. Ku Wol San - Regarding," Office of the Commissioner of Customs, August 9, 1999.

⁴⁸ For example, see Richard L. Armitage, "A Comprehensive Approach to North Korea," Institute for National Strategic Studies, National Defense University Strategic Forum, Number 159, March 1999, <<http://www.ndu.edu/inss/strforum/forum159.html>>. Im Dong Won, Kim Dae Jung's special envoy to Pyongyang, relayed Armitage's statement on March 27, 2002, that the United States had the option of intercepting North Korean missile shipments during Im's meeting with Kim Jong Il in early April 2002. See Yonhap News Agency, in "South Korea Denies North Diverted Cash for Tour Project into Military," BBC Monitoring International Reports, March 29, 2002 and Han Ki Hung, "Mi Armitage Pujanggan 'Puk Missile Such'ul Muryokchoji Halsudo,'" *Donga Ilbo*, March 29, 2002, p. 5, in KINDS, <<http://www.kinds.or.kr>>.

⁴⁹ Matt Kelley, "Ship Carrying Dozen North Korean Missiles Intercepted in Arabian Sea," Associated Press, December 11, 2002, in Lexis-Nexis; "Scud Missile Found on Ship from Yemen," Japan Economic Newswire, December 10, 2002, in Lexis-Nexis; Tom Raum, "Ship Carrying Dozen North Korean Missiles Intercepted in Arabian Sea," Associated Press, December 10, 2002, in Lexis-Nexis; "15 Scud Missiles Found on Ship from N. Korea," Japan Economic Newswire, December 11, 2002, in Lexis-Nexis, <<http://www.lexis-nexis.com>>.

⁵⁰ Xinhua News Agency, "US to Release Ship with Missiles for Yemen," December 11, 2002, in Lexis-Nexis, <<http://www.lexis-nexis.com>>.

⁵¹ Lee Kyo Kwan, "Missile Such'ul, Momt'ong-Haekshimbup'um 'Pulli Susong,'" *Chosun Ilbo*, March 1, 2002, <<http://nk.chosun.com>>; Lee Kyo-kwan, "NK Missile Exports Diversified in Technique," *Chosun Ilbo*, March 7, 2002, <<http://nk.chosun.com/english>>.

⁵² Im Ul Ch'ul, "Pukhan'ui Missile San'op-Shisul P'yonggawa Hyanghu Palchon Chonmang," *T'ong'il Kyongje*, August 1999, p. 100; North Korean defector Kim Myong Ch'ol, interview by author, Seoul, December 14, 2001.

⁵³ Bertil Lintner and Steve Stecklow, "Paper Trail Exposes Missile Merchants," *Far Eastern Economic Review* 166 (February 2003).

⁵⁴ In July 2002, wages and prices were increased substantially. One report claims that wages for "workers, farmers, scientists, and miners were increased tenfold, while wages of soldiers and government officials were raised 14 to 17 times the previous level." See Sim Kyu-sok, "True Picture of Higher Consumer Prices, Wages in North Korea," Yonhap News Agency, July 22, 2002, in "ROK's Yonhap Views Significance of Raise in Prices, Wages in DPRK," FBIS Document KPP2002072200081. Another report quotes a South Korean government official as saying that miners and soldiers received the largest wage increases, which were twenty times greater than their previous wages. See Ch'oe Ch'ok Ho, "Puk, 8 Wol 1 Il Imguminsang Chonmyonshilshi," *Hankook Ilbo*, July 24, 2002, in KINDS, <<http://www.kinds.or.kr>>.

⁵⁵ ROK Ministry of Unification, *Pukhan Kaeyo 2000* (Seoul: Ministry of Unification, December 1999), pp. 413-414.

⁵⁶ Kim Yong Shik, "Haek Kaebal Chongbonsa P'yogbuk Yongbyondanji," *Segye Ilbo*, April 30, 1997, p. 17, in KINDS, <<http://www.kinds.or.kr>>.

⁵⁷ Korean Central News Agency, "DPRK-Japan Pyongyang Declaration Published," September 17, 2002 and Korean Central News Agency, "Choson P'yongyang Son'on," September 17, 2002, <<http://www.kcna.co.jp>>.

⁵⁸ James A. Kelly, "U.S.-East Asia Policy: Three Aspects," Remarks at the Woodrow Wilson Center, Washington, DC, December 11, 2002, <<http://www.state.gov/p/eap/rls/rm/2002/15875pf.htm>>; Joby Warrick, "U.S. Followed the Aluminum: Pyongyang's Efforts to Buy Metal Was Tip to Plans," *Washington Post*, October 18, 2002, <<http://www.washingtonpost.com>>; U.S. Department of State Press Statement, Richard Boucher, Spokesman, "North Korean Nuclear Program," October 16, 2002, <<http://www.state.gov/t/pa/prs/ps/2002/14432.htm>>; Oh Young-hwan, "North Continued Nuclear-Arms Project," *Joongang Ilbo*, October 18, 2002, <<http://english.joins.com>>; Korean Central News Agency, "Spokesman for DPRK FM on DPRK Visit of Special Envoy of U.S. President," October 7, 2002, <<http://www.kcna.co.jp>>.

⁵⁹ Carol Giacomo, "US Says N. Korean Fuel Oil Deliveries Should End," Reuters, November 13, 2002, <<http://www.reuters.com>>; Korean Peninsula Energy Development Organization (KEDO), "KEDO Executive Board Meeting Concludes - November 14, 2002," November 14, 2002, <<http://www.kedo.org>>; Don Kirk, "Korea Leader Backs Plan to Block Oil to the North," *New York Times*, November 15, 2002, <<http://www.nytimes.com>>; Yonhap News Agency, November 15, 2002, in "ROK's Yonhap: KEDO Agrees to Suspend Oil Provision to N.K. from December," FBIS Document KPP20021115000008

⁶⁰ Korean Central News Agency, "DPRK Government Decides to Order IAEA Inspectors Out of DPRK," December 27, 2002; Korean Central News Agency, "Chosonjongbu Kukchewonjaryokkigu Sach'alwondul'ul Naebonaegiro Kyolchong," December 27, 2002; Korean Central News Agency, "Statement of DPRK Government on Its Withdrawal from NPT," January 10, 2003; Korean Central News Agency, "Chosonjongbusongmyong Haengmugijon'ajijoyag'eso Tal'oe," January 10, 2003, <<http://www.kcna.co.jp>>.

⁶¹ Korean Central News Agency, "Statement of FM Spokesman Blasts UNSC's Discussion of Korean Nuclear Issue," April 6, 2003; Korean Central News Agency, "Choson'oemusong Taehyon'insongmyong Chosonbandohaengmunjerul Yuen'anbori'eso Ch'wiguphan'un Chach'ega Chonjaengjonjugok," April 6, 2003, <<http://www.kcna.co.jp>>; Korean Central News Agency, "KCNA on DPRK's Nuclear Deterrent Force," June 9, 2003, <<http://www.kcna.co.jp>>; Korean Central News Agency, "Chosonjung'angt'ongshin Ronp'yong Uri'ui Haeg'okje'ryog'un Kyolk'o Wihyopsudan'i Anida," June 9, 2003, <<http://www.kcna.co.jp>>.

⁶² Most of these loans had been received from Western Europe. See Gregory F. T. Winn, "Sohak: North Korea's Joint Venture with Western Europe," Chapter 12 in Jae Kyu Park, Byung Chul Koh, and Tae-Hwan Kwak, *The Foreign Relations of North Korea* (Seoul: Kyungnam University Press, 1987), pp. 299-300.

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⁶⁴ Ch'oe Ch'ok Ho, Puk, Chuyo San'opch'e'e 'Kyongjejidowon Subaengmyong P'agyon," Yonhap News Agency, July 25, 2002, <<http://www.yonhapnews.co.kr>>.

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Skyrocket as Many State Subsidies End," *Washington Post*, September 13, 2002, p. A1, in Lexis-Nexis, <<http://www.lexis-nexis.com>>; Don Kirk, "North Korean Ending Rationing, Diplomats Report," *New York Times*, July 20, 2002, <<http://www.nytimes.com>>; Kang Chol-hwan, "North Korea Undergoing Economic Reform," *Chosun Ilbo*, July 25, 2002, <<http://english.chosun.com>>; Brent Choi, "N.K. Enforces Reform in Payrolls, Consumer Price," *Joongang Ilbo*, July 12, 2002, <<http://english.joins.com>>.

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⁶⁷ Bermudez, Jr., "A History of Ballistic Missile Development in the DPRK," pp. 29-30.

⁶⁸ Chagang Province is the site of several munitions factories and has a legacy in North Korea as having been the location where KPA supporters overcame hardship to produce weapons and other necessities during the Korean War.

⁶⁹ ROK Ministry of Unification, *Pukhan Kaeyo 2000* (Seoul: Ministry of Unification, December 1999), p. 88.

⁷⁰ In the wake of the war in Iraq, North Korean officials in 2003 began to say that Pyongyang needs a "strong physical deterrent" to prevent war and to preserve the territorial integrity of the DPRK.

⁷¹ ROK Ministry of Unification, *Pukhan Kaeyo 2000* (Seoul: Ministry of Unifica-

tion, December 1999), pp. 88-89; Chong Nak Kun, "Kim Jong Il'ui 'Kyogje Kangsongdaeguk' Master Plan," *Shindonga*, August 2000, <http://www.donga.com/docs/magazine/new_donga/200008/nd2000080030.html>.

⁷² Korean Central News Agency, "KCNA on DPRK's Nuclear Deterrent Force," June 9, 2003, <<http://www.kcna.co.jp>>; Korean Central News Agency, "Chosonjung'angt'ongshin Ronp'yong Uri'ui Haeg'okje'ryog'un Kyolk'o Wihyopsudan'i Anida," June 9, 2003, <<http://www.kcna.co.jp>>; Martin Nesirky, "N.Korea (sic) Wants Atom Bomb, Smaller Military," Reuters, June 9, 2003, <<http://www.reuters.com>>.

⁷³ "In'gongjiguwisongsangshik (3)," *Rodong Sinmun*, September 16, 1998, <<http://www.korea-np.co.jp/korea/f-land/dprk/gms-1/rd980916-03.htm>>.

⁷⁴ "<Rodong Sinmun>," <Kwangmyongsong 1 Ho> Kwanch'alchadul'ui Moksori Sogae," *Rodong Sinmun*, October 6, 1998, in the *Choson Shinbo*, October 9, 1998, <<http://www.korea-np.co.jp/korea/f-land/dprk/gms-1/sink981009.htm>>.

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