The North Korean Economic System: Challenges and Issues

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Abstract

The North Korean economic system is the product of a variety of influences that have shaped its evolution. To understand this system and its challenges today, it is necessary to appreciate North Korea's unique history and dynamics of change, both internally and externally. These factors have shaped national economic policies and behavior of state and non-state actors in ways that are different than has been the case in other transition economies following the collapse of the Soviet Union. This paper reviews the evolution of the North Korean economic system under the terms of its three leaders; assesses the impacts of recent developments on the system, including UN Security Council Resolution 2270, closure of the Kaesong Industrial Complex, and Seventh Party Congress; and discusses the fundamental challenges facing the economic system today and implications for future engagement policies by the international community. Despite its isolation and many difficult challenges, the North Korean economic system has proven more resilient and adaptive to changing circumstances than many outside observers have expected. A clearer understanding of the limits and opportunities for international economic engagement with North Korea should be a consideration in strategies to address the long-standing security challenges that North Korea poses to its neighbors and the world.

Keywords: North Korea, economic system, economic development, transition, economic reform, sanctions, engagement

Introduction

There are no convenient analogues to the economic system in North Korea that exists today. Lessons learned from the success stories of its "Asian Miracle" neighborhood or other transition economies following the collapse of the Soviet Union do not seem particularly helpful in assessing the current economic system and how to address its challenges. The North Korean economic system thus needs to be viewed as *sui generis*, and to be analyzed from multiple perspectives that provide a

collage of insights from which to understand the system and its challenges for the future.

This paper will review the evolution of the North Korean economic system under its three leaders and the forces that have shaped its story. It will then discuss the impact of recent developments on the system, including UN Security Council Resolution 2270, closure of the Kaesong Industrial Complex (KIC), and the May 2016 Party Congress and follow-up meeting of the Supreme People's Assembly. The paper concludes with an assessment of the fundamental challenges facing the economic system today and implications for future economic engagement policies by the international community.

Evolution of the Economic System

Kim Il-sung Era

The foundations of the North Korean economic system include its geography and natural resources, Russian-influenced introduction of socialist economic policies and institutions, Kim Il-sung's philosophy of *Juche* and role in providing personal guidance, dependence on economic aid and trade with communist countries, and post-Korean War security imperatives to maintain a large standing military. During the 1950s and 60s, this cocktail of influences shaped an economic system that:

- Inherited from the Japanese colonial period an urbanized industrial economic structure rooted in natural resources exploitation;
- Relied on counter-trade with the Council for Mutual Economic Assistance (Comecon) countries and subsidized oil from the Soviet Union to sustain a highly energy-dependent economic system, particularly for transport, agriculture, and industry;
- Embraced large-scale collectivized agriculture and priority of heavy industry;
- Adopted a Soviet-style state planning system for managing production and setting prices, a domestic banking system with little need for monetized transactions, and an emphasis on science and technology for productivity growth;
- Established a nationwide Public Distribution System (PDS) for food and essential consumer commodities that extinguished a role for markets; and

 Followed an inward-focused economic development policy that emphasized self-reliance over expanding trade and investment relations with non-communist countries.

The underlying policy established by Kim Il-sung was to prioritize "economic and defense construction simultaneously."

While this system initially delivered an economy that performed better than South Korea's during the early post-war period, South Korea's shift to an outward-oriented economic development policy under President Park Chung-hee led to a reversed situation that deepened over time. The story of North Korea's gradual economic decline and South Korea's dramatic success did not, however, lead to a rethinking of the fundamentals of the North Korean system, despite some efforts in the early 1970s to improve qualitative aspects of the system. These efforts included giving more attention to knowledge-based industry, balancing light and heavy industry, and promoting women's role in the labor force. North Korea also experimented with a limited opening to trade and investment with Europe in the 1970s. However North Korea's failure to use these resources effectively and its eventual default of \$3 billion in foreign debt led to further economic isolation.

In the 1980s the state planning system was essentially abandoned in all but form. Although leaders experimented with limited decentralization and management improvements, they were unwilling to consider incentives for private initiative or a role for markets. As a result, economic growth declined and capital stock deteriorated.

North Korea was wary of the initial Chinese economic reforms. Senior officials, including Kim Jong-il, visited China during this period to observe changes and explore potential lessons for North Korea. This wariness was reinforced by the political clashes at Tianamen Square. Given its need for social control, no serious efforts were made to adopt Chinese-style reforms.²

While North Korea's domestic economic system was faltering and heading toward a poverty-trap, the leadership and military still required foreign currency. Hard currencies were used for personal consumption and patronage, as well as for importing military and industrial equipment unavailable through the Soviets. Trading companies and specialized banks were established to meet the separate needs of the military, the "court economy" (serving the elite cadres) and the "people's economy" (guided by the Cabinet). This led to an evolution of the system that tied

foreign exchange-earning economic assets and income to separate institutional frameworks, reinforcing a separation of powers and privileges with no overarching economic management capability. For example, neither the Central Bank nor the Foreign Trade Bank had the authority or capability to supervise the entire banking system, curtailing any ability to provide macroeconomic management or national creditworthiness assessment. The division of the economic system was further complicated by the secretive policy toward collection and publication of economic statistics, which remains a major issue today. In this system, the cabinet had limited authority and capacity to provide economic development leadership and management.

North and South Korea signed the Basic Agreement in 1992, opening the door to inter-Korean economic collaboration. This led to gradual growth in processing-on-commission trade that provided economic benefits to both countries. However, there was no direct interaction between the two different economic systems, relying instead on intermediate trading companies. Inter-Korean economic cooperation was marked by North Korea siphoning off hard-currency earnings for the "court economy" and South Korea paying for concessions. These practices continued with the opening of the KIC, where wages were paid to the North Korean government instead of workers. In effect, South Korea paid bribes for concessions during the 10 years of the "Sunshine" policy from 1998-2008. From its inception, South Korean economic cooperation with North Korea has been implemented in ways that have propped up the North Korean economic system, rather than create incentives to change it.

Kim Jong-il Era

The collapse of the Soviet Union in December 1991 and the resulting trade shock on the North Korean economy triggered a 50% drop in national production between 1994 and 1998 and failure of the PDS.³ These events led to famine and the "Arduous March." Kim Ilsung's death and political transition to Kim Jong-il's leadership coincided with this catastrophic calamity. While there was no effort to undertake economic reforms in response to these developments, North Korea did open up to the international community, requesting and receiving foreign humanitarian aid. This exposed North Korean officials to many different foreign organizations and governments from the noncommunist world, requiring policies and mechanisms to manage these

relationships, and logistics for receiving and distributing foreign assistance. One consequence was that the Cabinet was given a central role in dealing with these developments, elevating its importance in economic management even while Kim Jong-il was instituting his policy of "military-first" politics. At the same time, the emergence of farmers' markets as a grass-roots response to the famine was tolerated by the state even though this was accompanied by a new wind of private incentive and initiative that was previously unimaginable.

The North Korean government recognized that some systemic changes were needed in economic policy and management. In 1998, North Korea adopted constitutional amendments that for the first time introduced the acceptability of profits as a prerogative of state enterprises. The Cabinet was restructured to integrate policymaking commissions with implementation responsibilities of the ministries, followed by an overhaul of senior personnel to promote younger technocrats. These moves were accompanied by a diplomatic effort to expand formal relations with many Western countries, including most of Europe, Australia, and Canada, which was largely motivated by a desire to expand aid and trade with the non-communist world. With these developments-along with ongoing economic reforms in China and Russia—North Korea faced a reality in which all of its external economic partners would be market economies. At the same time, North Korean government needed to come to grips with a small but growing domestic market economy that it was tolerating but not endorsing. Adapting to these realities would be a challenge both politically and practically: Particularly problematic was the disconnect between official prices set by the state and black-market prices that could not be controlled. Similarly, market activity expanded, evolving from barter trade to monetized transactions using both domestic and foreign currencies that were outside the legal and state-management systems. The growing incompatibility between the state-planned economic system and growing market dynamics created a dilemma for policymakers. This incompatibility remains the major issue facing the North Korean economic system today.

The economic reforms of 2002 and 2003 were essentially an *ex-post* acceptance of these developments. The price reforms that brought the exchange rate and wages closer in line with black-market prices—the loosening of restraints on state enterprise management, and the legalization of markets for both households and enterprises—were

intended to provide windfall gains in income to workers and enterprises that would trigger increased spending and production to foster economic growth. This proved elusive as inflation outpaced real economic benefits due to both an incomplete policy liberalization package as well as inadequate macroeconomic management information and capacity. Lack of outside knowledgeable advice and unwillingness of the leadership to transition to a more market-based economic system contributed to the disappointing results. The military and Workers' Party resisted these initiatives. A 2005 attempt to reassert the primacy of the PDS for rice in 2005 failed, as did efforts to raise money from private individuals through lottery-like bond sales. The shift in national strategy was reflected in 2006, as Kim Jong-il purged the cabinet, followed by missile launches and North Korea's first nuclear test. Although informal markets continued to grow and diversify—largely driven by cross-border trade with China and private initiatives—further economic reforms ground to a halt.

The UN Security Council imposed sanctions on North Korea following the missile and nuclear tests of 2006, pressuring the economic system and its ability to mobilize foreign exchange. The UN imposed additional sanctions after subsequent nuclear tests in 2009 and 2013. The sanctions reduced incentives for transparency in foreign trade and banking, and led to more reliance on front companies and trade diversion tactics. The North Korean regime used cash rather than the international banking system for monetary transfers, expanded remittances from North Korean workers sent abroad, and increased demands on embassies to engage in foreign exchange earning activities. Member states' lax enforcement of sanctions contributed significantly to North Korea's ability to evade them.⁵ Concurrently, the international community curtailed humanitarian assistance, leading to a significant reduction in UN and foreign non-governmental organizations' interactions with North Korea. Notable among these was the elimination of substantial South Korean fertilizer and rice aid following the military confrontations in the West Sea in 2010.

A tipping point in the evolution of the North Korean economic system occurred in late 2009 and early 2010. The economic leadership of the Workers' Party launched a currency reform aimed at eliminating accumulated private household savings by placing a strict limit on the amount of old currency allowed to be traded for new currency. This was followed by a directive to close down markets throughout the country

and implement forced labor campaigns. Efforts to reverse the expanding role of markets, prevent the circulation of money in the economy, and reassert Marxist state-directed principles met strong popular resistance, especially among the elite in Pyongyang. Such pushback was unprecedented, revealing a growing wedge between the State and a people who doggedly pursued household investment in market-based activities to meet their basic needs. The failure of this reset policy led to a public apology in Pyongyang, a letter to provincial authorities permitting them to allow markets to re-open, and a purge (and apparent execution) of the Workers' Party Finance Director who had implemented these initiatives. The result has been acceptance (in practice if not in policy) that the North Korean economic system would become a mixed economy with both state-directed and market-based activities that are not only tolerated, but also increasingly institutionalized.

Kim Jong-un Era

In recent years market activities have grown and diversified as Kim Jong-un concentrated on solidifying his authority and legitimacy, and giving new emphasis on broad-based economic development. Markets have functioned relatively smoothly with the state recognizing their role in practical ways, collecting fees from market-stall vendors and regulating their hours and operations. Prices are largely market-determined, despite continuing state directed price-setting practices for state enterprises and wages of government and state enterprise workers that are significantly below market prices. Nevertheless, some state enterprises have moved to setting wages aligned to market prices as a practical necessity. State enterprises and government ministries have also acted as umbrellas of official protection for entrepreneurs operating private businesses in services and production. State enterprises produce both for the state plan and domestic and foreign markets, retaining profits to invest in expanded production and performance bonuses for workers. While legally all property is stateowned, de facto private ownership and active housing markets are functioning in parts of the country.⁶

Training inside and outside the country in business and finance is officially authorized⁷ and university professors are allowed access to the internet for research. Recently, North Korea upgraded the Pyongyang Professional School of Statistics to the Pyongyang Economy and Technology University. The university is dedicated to modernizing

practical business training for factories and companies, providing distance learning services, and emphasizing on-site learning and research on current economic conditions.⁸

A new class of middle-class businessmen called *Donju* is accumulating capital and managing increasingly large business operations, including those who work as contractors for enterprises owned by the military. With the growth of private initiative, the value of the political leadership's patronage benefits has declined. In its place, the political leadership provides implicit permission to continue with private activities that are still technically not legal or regulated. Also, as markets meet a high percentage of household basic needs, the younger generation that has no memory of the pre-famine days of the 1990s sees the role of markets in their lives as normal. Consequently, they are increasingly inured to Workers' Party economic slogans and ideological appeals. These impacts of the growing role of markets in North Korean society pose significant future political challenges as well as pressures to liberalize the economic system.

Despite this evolution in market activity and impact on society, no recognition of markets has yet been given in the annual New Year's editorial statement on economic achievement and plans for the future. The lack of official embrace of the role of markets perpetuates a socialist system myth and highlights a major dilemma for the practical management of the mixed economy. The legal, financial, and regulatory systems of the state have lagged behind the growing role of markets, leaving a vacuum that is being filled by corruption and political uncertainty. Official discourse and mass-labor mobilization efforts—such as the recent 70-day campaign and curtailment of markets in the run-up to the Party Congress—are products of Party-centered ideology and management practices that are still considered necessary for regime legitimacy. However, despite the imagery of collective effort to achieve socialist national goals, ordinary North Koreans have received these politically motivated initiatives with acquiescence, but not enthusiasm.

Role of the Cabinet. Kim Jong-un signaled early in his leadership his desire to place more responsibility for economic development strategy and economic management under the Cabinet. He has promoted economic technocrats into senior positions, including Prime Minister, Finance Minister, and President of the Central Bank. This led to somewhat timid economic reform initiatives under the "May 30 Measures." Adopted in 2014, the measures strive to give more

autonomy to enterprise managers and small-scale agricultural production units, allowing them to retain a larger share of their production for sale through markets, rather than contributions to the state system. These reforms initially were implemented on a pilot basis, but have been expanded. Other changes in "economic management in our own style" include financial system development, increasing efforts to promote import substitution in line with *Juche* economic principles, and promoting the role of the knowledge economy in stimulating innovation. Science and technology is regarded as the leading means of increasing productivity and pursuing national goals both in security and the economy. The modest agenda and scale of reform efforts reflects continuing tensions and contradictions between the lure of markets, role of the Cabinet in managing economic system change, and the embedded interests of the military and Workers' Party.

Special Enterprise Zones. Since the creation of the Rason Special Economic Zone (SEZ) in the mid-1990s, North Korea has explored the potential role for SEZs in attracting foreign investment, transferring technology and modern business management practices, expanding trade and export earnings, and creating employment for North Korean workers. Underlying the willingness to entertain the idea of incorporating a role for SEZs in the economic system has been a practical realization that the ongoing need for foreign exchange and potential role for foreign investment in stimulating economic growth are compelling interests, even if they contradict the self-reliance economic philosophy and socialist principles underlying domestic economic management. This line of thinking was actively promoted by Jang Songtaek during Kim Jong-il's era and led to approval of new SEZ laws for Rason and Hwanggumpyong and Wihwa Islands Special Economic Zones in 2011. These laws introduced policies and principles adapted from international experience, and were very different from the policies governing the KIC.¹⁰

Kim Jong-un embraced the SEZ economic development strategy, leading to the 2013 announcement of a policy to establish 13 new SEZs in various parts of the country. Other associated initiatives included a reorganization of the institutional arrangements to promote foreign investment and oversee SEZ development with responsibilities consolidated under the Cabinet, and the adoption of a new SEZ law codifying the new system. While North Korea's enthusiasm and ambitions for SEZs have been widely publicized both domestically and

internationally, actual progress in the last three years has been nearly nonexistent with the exception of Rason, where Chinese and Russian interests and use of the Rajin port have provided some modest stimulus. This is not surprising, as both political and commercial risks for foreign investors are too high for most investors, especially as sanctions have amplified these risks. The lack of infrastructure for electricity, water and sanitation, telecommunications, and financial services that are needed to attract investors has also been a major obstacle. The SEZ experience illustrates a fundamental dilemma modernizing the economic system, namely a disconnect between North Korea's political, security, and financial realities and the country's economic needs and aspirations.

Political Choices. Since Kim Jong-un assumed power he has made a number of important political choices that have significance for the future of the North Korean economic system. First, in his New Year's address in 2012 and regularly since, he has made statements of public commitment to improving the livelihoods of ordinary North Koreans and given economic development high priority. This commitment is one critical anchor for the legitimacy of his rule, and underpins his willingness to give the technocrat-oriented Cabinet lead responsibility for economic development strategy and pursuing "economic management improvements in our own style." Second, the highly publicized purge and execution of his uncle Jang Song-taek sent a political warning to the economically ambitious among the North Korean elite: accumulation of personal economic power and networks of supporters would not be risk-Keeping potential contenders for power off guard and being ruthless is a page from Kim Il-sung's political control handbook. Third, the "Byungjin" policy—a dual-track national strategy of nuclear and missile development and economic expansion—is a statement of Kim's commitment to having his cake and eating it too. The North Korean leader seeks to provide both security and improve the economy while remaining in power. By conjoining his security and economic objectives, Kim Jong-un is both taking a gamble and setting the stage for a possible future negotiation process.

Impacts of Recent Developments and Challenges for the Future

Impact of Sanctions

The nuclear and missile tests of early 2016 have escalated confrontation between North Korea and the UN Security Council, the

U.S., and U.S. alliance partners South Korea and Japan. North Korea's tests may well have been motivated by domestic political calculations in the run-up to the Party Congress, but the impact of these provocations has triggered responses that will have significant consequences for North Korea's economic system.

UN Security Council Resolution (UNSCR) 2270 builds on previous Security Council resolutions in several important ways: It aims to tighten compliance and reporting by Member States and reduce evasion by North Korea. It expands trade sanctions to include all exports of coal, iron, iron ore, rare earths, gold, titanium ore, and vanadium ore that would benefit the military. It expands sanctioned individuals and companies, requires inspections of all North Korean cargos at ports of entry and exit, and tightens constraints on shipping and logistics. It deepens sanctions on banking relations by requiring Member States to close branches of North Korean banks and forbidding future joint venture banks and taking part ownership of North Korean banks. It bans all exports to North Korea of aviation fuel, including rocket fuel and Overall, the UNSCR 2270 represents a significant enhancement of the sanctions regime, intended to reduce the space for North Korean overseas business networks, make logistics of trade and finance more difficult, deny income from major export commodities that would feed military coffers, and deny imports critical for North Korea's programs through tightened rules and inspections. 12 Particularly noteworthy are the sanctions on coal and iron ore exports to China, which provide the major share of North Korea's export earnings.

There are a number of ways that UNSCR 2270—and a strong commitment by the UNSC Sanctions Committee to supervise more closely implementation than in recent years—are likely to present challenges to North Korea's economy and influence adaptations in the economic system. A number of these likely consequences would pull North Korea deeper into economic isolation, continuing under-the-radar activities to meet high priority foreign exchange needs. Other consequences would actually lead to incentives that could create more internally efficient economic activity and alignment of non-sanctioned trade to areas of natural comparative advantages. These would generally be seen as positive from a longer-term rational economic development perspective. In addition, one unintended consequence would be a policy perception in Pyongyang that international sanctions are actually compatible with North Korea's *Juche* philosophy, reinforcing North

Korea's determination to move in the direction of becoming a more self-sufficient economic system. In addition to national pride, this ideological response could help explain the North Korean leadership's resistance to responding to the pressures of sanctions in the ways that the UNSC expects would motivate Pyongyang to return to the negotiating table on its nuclear and missile weapons programs.

Specific areas of possible impacts of the new sanctions are:

- a) Expanded use of front companies, illicit activities, and financial institutions that do not participate in the international banking system. North Korea has already proven itself to be adept at building networks of relationships to support its overseas business interests, using layers of shell companies to obscure ownership and registration practices. Affiliations with Chinese and Russian companies permit trade diversion to countries that have imposed sanctions on North Korean products, notably including Japan. These affiliations also facilitate goods imports from third countries that have been lax in implementing tight control over sanctioned exports destined for North Korea. While UNSCR 2270 aims to reduce the space for such business arrangements, it should be expected that North Korea would seek to diversify and multiply such indirect trading activities. Similarly, the sanctions that seek to isolate North Korea from the international financial system are likely to spur increased use of cash for settlement of transactions and the use of non-bank financial institutions that fall outside the scope of mechanisms available to implement the financial sanctions. Sanctions also increase incentives for North Korea to expand illicit activities and relations with criminal organizations in China and Russia. Drug trafficking and counterfeiting of U.S. and Chinese currencies are already being identified as possible areas for expanded illicit activity.
- b) Seeking creative ways to avoid import and export inspections and pursue claims of non-sanctioned trade for livelihood purposes. Already there are indications that North Korea is creatively responding to the pressure to increase inspections of cross-border cargo. Bribery, expanded small scale cross-border smuggling, use of trains rather than trucks, concealment of sanctioned goods (such as titanium plates) by attaching them to the underside of trucks, and the

use of small ships that avoid tracking to export sanctioned minerals and import oil products in cahoots with Chinese and Russian organizations have already been reported. One implication of these developments is diversification and decentralization of state and non-state participants in these avoidance endeavors. This will reduce the ability of authorities in Pyongyang to exercise centralized control and increase incentives for lax enforcement on the boundaries with China and Russia. Rewards for private initiative are likely to give further stimulus to enterprising *Donju* and their growing role in the market economy.

- c) Increased costs for overseas transactions. To meet essential foreign exchange needs, North Korea will need to pay a higher price in transaction costs, premiums for assistance from foreign companies willing to assist in evasion, and bribes of customs officials and border security personnel. Thus, even successful evasion will have an impact on the North Korean economy and its capacity to mobilize foreign exchange. (The enforcement of UNSCR 2270 would also place significant costs on Member States to comply).
- d) Diversification of trade to reduce dependence on China and incentives to increase domestic content and value-added for nonsanctioned exports. Perhaps the most important aspect of UNSCR 2270 is China's support for sanctions and declared intention to do its part in their enforcement. Loopholes and non-state actors will contribute to continued high level of trade between China and North Korea, weakening of the impact of sanctions. China's tightening of economic pressure will, to a large extent, determine the effectiveness of UNSCR 2270. Even without the sanctions however, North Korea's extreme dependence on its economic relationship with China has become problematic for the North Korean economic system. In 2015, exports of iron and iron ore plummeted due to lower international commodity prices and reduced demand for construction materials as China's economy slowed and infrastructure investments shrank. Similarly, coal exports to China faces uncertain prospects as China has decided to curtail future growth of coal-fired power plants, reduce steel output as construction slows, and address air pollution and climate change challenges. North Korean reliance on iron and coal exports to China is a vulnerability that the system faces, with or without the pressure of sanctions. 14 This is likely to result in reinvigorated efforts to pursue increased domestic content of

- inputs to agriculture and industry, and to diversify exports in such areas as textiles, value-added manufacturing, and knowledge services.
- e) Diversion of coal and other sanctioned ore exports to domestic economic activities including Donju market-based entrepreneurial initiatives. The combination of the sanctions on coal and slowing demand for exports threatens the domestic coal mining industry. These affect the incentives that could accelerate a shift to domestic uses of coal that could both assist in North Korea's desire to become more self-reliant and stimulate entrepreneurial initiative. Increased use of domestic coal and minerals for electric power production, gasification, and fertilizer could reduce import requirements for the economy. There is also evidence that *Donju* are already establishing new production and marketing chains for the domestic shoe industry where coal plays an important role in small-scale operations.¹⁵
- f) Adaption of the PDS to meet transition needs of displaced laborers, including miners and former workers at KIC. To the extent that sanctions do cause a sharp fall in demand for iron and coal exports that cannot be diverted to domestic economic use, North Korea will face a labor dislocation problem that will require short-term social protection responses and longer-term redeployment efforts. A similar situation now confronts the KIC 54,000 workers who lost their jobs after the South Korean government decided to close the complex. A systemic question for North Korea is whether to prioritize the PDS as a mechanism to alleviate social distress among these affected segments of the population. Reducing the role of the PDS as a means for subsidizing the elite to maintain their loyalty to a more deliberate tool for managing social inequality would be a rational evolution given that markets are now satisfying the basic consumption needs of a large majority of the population.

Closing of the Kaesong Industrial Complex

South Korea's decision to shut down the KIC in February 2016 effectively reset all forms of economic relations between the two Koreas. While most inter-Korean economic cooperation was suspended in 2010 after the sinking of the South Korean *Choenan* and artillery shelling of Yeonpyeong Island, a South Korean held island in the West Sea, the KIC remained an open door to the prospect of mutually beneficial economic relations. While the KIC has experienced ups and downs in its 16-year

history, notably the closure initiated by Kim Jong-il shortly after he assumed power, these disruptions have proven to be temporary. This time, however, it could be different, and both sides are taking the prospect of a permanent closure seriously.

The hardline policy of the South Korean government toward the North Korean nuclear program and other military provocations—coupled with President Park Geun-hye's Dresden Speech that portrayed unification as an economic bonanza for South Korea—have set the tone for the current impasse in inter-Korean economic relations. However, in South Korea the surprise results of parliamentary elections in April 2016 that gave liberal parties a majority has reinvigorated domestic debate about how to approach inter-Korean relations and the future of the KIC. This has also altered the calculus for the next presidential election in 2017, leading to a likelihood that the future of the KIC will be in limbo for the next two years, with short-term consequences both for the companies that have invested there and for North Korea as it absorbs the loss of \$100 million a year in foreign exchange income and jobs for the 54,000 workers. North Korea can adopt a holding strategy leaving the physical assets in the KIC alone for the time being and providing social welfare protection for the displaced workers. Alternatively, Pyongyang could confiscate the physical assets and grant state enterprises or Donju rights to build new businesses for the domestic economy or export markets other than South Korea. The latter option would require investments in electrical power and transport improvements by truck and port access as well as finding new sources of inputs for production.

In either case, it is highly improbable that the KIC's future will look like its past. Even if there were to be a new negotiation with South Korea to reopen the zone, the underlying business model will be subject to renegotiation. Key points include the practice of paying wages in dollars to the North Korean government instead of directly to workers, potential for joint ventures and North Korean-owned enterprises operating in the zone, and expanded backward linkages to the North Korean economy, both as a market and source of inputs to production. A question for North Korea will be whether it is willing to apply the policies and management practices it has established for SEZs on the China border to a future KIC agreement on the border with South Korea. The potential for South Korean investment and operations in the SEZ proposed for Wonsan and re-opening of Mount Kumgang could also be affected by a new KIC negotiation. In the background, the underlying

issues of political and commercial risks faced by investors and how to pay for basic infrastructure needs of SEZs, including KIC, will need to be resolved if any significant changes will be realized.

Results of the Seventh Party Congress

The May 2016 Party Congress was a significant event that consolidated Kim Jong-un's rule and laid the foundation for how he plans to govern. The affirmation and institutionalization of the *Byungjin* policy of parallel pursuit of a nuclear program and economic development was the core policy message from the Party Congress. The announcement of the adoption of a five-year economic plan for 2016-2020 was the core message related to Kim Jong-un's economic vision for the future. Despite widely held expectations that the Party Congress would announce significant new directions for economic policy and management, no such pronouncements were made and few details were given as to the content of the new five-year plan. It was also noteworthy that no acknowledgement was given to the role that markets are playing in the economy, nor expectations for the impact of sanctions and policies to respond to them.

Return of five-year economic plans. The fact that North Korea is adopting a formal five-year economic development plan is in itself significant. This requires disciplined technocratic preparation as well as political acceptability. Kim Jong-un is establishing a baseline for the legitimacy of his rule in delivering on economic development that will provide more objective accountability for performance than has existed in North Korea for decades. Kim Jong-un has consistently promoted the role of the Cabinet as taking the lead in developing a national economic development strategy and supervising its implementation.

Another noteworthy insight into the rationale for Kim Jong-un's commitment to implementing the five-year economic development plan was his comment that "[i]t is necessary to further increase the might of the politico-ideological power and military power." The acknowledgement that political power and national security are not only beneficiaries of economic development, but that it is essential for their strength, is a new formulation of the relationship of the economy to regime stability and national defense.

While much of the economic rhetoric of the Party Congress was couched in traditional socialist terminology, Kim Jong-un also appealed to the need for economic rationality. The tension between old-school

socialist ideology and forward-looking pragmatism reflects unresolved dilemma that is rooted in the need to stimulate sustainable economic growth in a hostile external economic environment. challenge is amplified by the intergenerational shift in social expectations that is underway. There is a continuing need among the leadership to launch "loyalty campaigns," including the 70-day campaign prior to the Party Congress, the requirement for university students to interrupt their studies to assist during the rice planting season, and a new 200-day campaign to support implementation of the five-year economic development plan. All are intended to use traditional labor mobilization methods to enforce political discipline and extract commitment to contribute directly to the national economic development agenda. At the same time, resentment against these campaigns is growing: The younger generation is more interested in making money than demonstrating ideological loyalty, is hungry for knowledge about the outside world, and has acquired a taste for consumption goods. The need to find a workable balance between socialist economic principles and the impact of market dynamics has not been resolved through the Party Congress.

Economic priorities. On the surface there is nothing new in the list of economic priorities that Kim Jong-un enumerated at the Party Congress: energy, agriculture, and light industry. These reflect basic challenges for the domestic economy and are areas that have been given priority in recent annual New Year's statements.

For energy, the specific references in the speech to the Party Congress to more use of domestic sources such as coal and nuclear power are significant in that they reflect North Korea's recognition of continuing dependence on imported sources of energy. With exports of coal to China expected to decline due to recent UN Security Council sanctions—coupled with slowing demand in China as it turns towards dealing with climate change and pollution challenges—shifting to more domestic use of coal for power production as well as other manufacturing uses is a rational economic response. North Korea has also integrated peaceful uses of nuclear capability for power production as part of its nuclear commitment under the Byungjin policy; 17 this provides a potential hook for future political negotiations on its nuclear future. 18 While the precedent of the light water nuclear reactors under the Agreed Framework was never based on genuine economic reasoning by the North Koreans in the 1990s, a future nuclear negotiation that trades concessions on the nuclear weapons program with support for

building a safe nuclear power capability could potentially have traction under the *Byungin* policy umbrella without North Korea having to renounce the policy itself in the context of a broader Peace Accord. Also, any significant expansion of domestic electricity production will require upgrading the power distribution system, which has high losses and not sufficient stability to handle nuclear power.

Agriculture has been doing relatively better in recent years, partly as a result of limited reforms introduced gradually. While the UN Food and Agriculture Organization has reported a downturn in grain output in 2015 due to unfavorable weather conditions, the underlying trend is positive and likely to continue. ¹⁹ It is understandable that Kim Jong-un would want to associate himself with a positive economic story and promise continuing improvements. His reference to mechanization of agriculture is noteworthy, recognizing that agricultural productivity improvements will require an infusion of investment in equipment, and not just incentives that come with earlier decisions to permit smaller production units and larger shares of production held for personal use or sales in the markets. How to finance this kind of economic development investment remains an important issue.

External Economic Relations. Another seemingly contradictory element in Kim Jong-un's speech was his emphasis on North Korea's need to expand international trade and engagement with the global This endorsement of an outward-oriented economic development strategy is not consistent with the self-reliance economic development ideology that Kim Jong-un has strongly embraced. However, it is a realistic response to the fact that North Korea needs to earn foreign exchange to meet its economic development, military, and patronage objectives. How Kim Jong-un intends to reconcile this goal with the increasing pressures of sanctions is unclear, and will have implications for the credibility of his Byungjin policy, as well as the challenge of ideological rationalization. It nevertheless represents continuity with the articulation of North Korea's pragmatic interests in expanding and diversifying its external economic activities already discussed as a response to sanctions and over-dependence on China, and a strategy that underlies its aspirations for SEZs.

In general, the Party Congress does set the stage for a new phase of economic management in North Korea. With the empowerment of the Cabinet to guide the economic development strategy and development plans, it is likely that additional efforts to expand pragmatic policies and

rely less on ideological ones will emerge over time, as North Korea adapts to the impact of international sanctions and strives to meet its economic aspirations.

People's Assembly Meeting

In a quick follow-up to the Party Congress, the Supreme People's Assembly was convened for a rare meeting on June 29, 2016.²¹ The major outcomes of that meeting were the dissolution of the National Defense Commission as the highest-level decision-making body of the Government, and its replacement by the establishment of a State Affairs Commission; the appointment of Kim Jong-un as Chairman of the new Commission; and the appointment of Premier Pak Pong-iu as one of three Vice-Chairmen. ²² Also noteworthy was the appointment of three Vice Premiers to the Cabinet: Ri Ryong-nam who is responsible for foreign trade; Ri Ju-o, for many years a minister of light industry; and Kim In-ho, an experienced expert on agriculture who will also serve as Minister of Agriculture. The actions signal the demise of the "militaryfirst" politics of the Kim Jong-il era and reinforce the policies articulated at the Party Congress of elevating the role of the leader of the Cabinet in national decision-making; giving high priority to the Cabinet's role in leading the five-year economic development plan implementation, and pursuing expansion and diversification of foreign trade, production of consumer goods, and agriculture as an important priorities of the economic development effort. Few new details emerged from the meeting about the specific contents of the economic development plan.

Fundamental Challenges and Implications for Future Economic Engagement Policies

The challenges facing North Korea's economic system today are defined by the confluence of many influences that have shaped the path of historical evolution of the system—from its roots in Soviet-inspired state planning and Kim Il-sung's personal style and philosophy of governance to the conflicted situation of today with its unacknowledged reliance on markets—policy contradictions, awkward internal political economy dynamics, and heavily sanctioned external economic environment. Now that Kim Jong-un has achieved endorsement of his governance framework and leadership marked by the *Byungjin* policy, his election as Secretary General of the Workers' Party and appointment as Chairman of the State Affairs Commission, realignment of the

relationship of the Party and military, streamlining of organizational arrangements, and high-level personnel appointments, the question is: How will he deal with the fundamental challenges he faces going forward?

Formally Recognizing the Role of Markets

Internally, the biggest challenge is how the economic system adapts to the growing role of markets in meeting basic needs and social expectations of the population. These expectations are especially acute for the generation that has grown up after the famine of the 1990s; the increasingly wealthy and influential middle class that derives its power in part from privilege and in part from private initiatives; and the growing numbers of state enterprise managers willing and allowed to operate in both the state-planned system and the market system with management practices rooted in market incentives. These internal pressures have led to tolerance and some timid adaptation of state policy to facilitate market But these have been accompanied by impulses of the activities. Workers' Party to continue to require mass labor mobilization campaigns in preparation for major political holidays, special events, and agendas, seek socialist ideological continuity in official pronouncements and state media that is increasingly removed from economic realities, suppress markets when security and social control needs are threatened, and move very cautiously to adopt laws, economic management policies, and financial system improvements that would liberalize markets, improve productivity, and broaden beneficiaries of economic development. To what extent adoption of the new five-year plan and elevation of the premier of the Cabinet to politburo stature will address this fundamental question in more direct and robust ways that would emulate the formal embrace of markets by China and Vietnam remains a major question. An important policy indicator will be recognition of private property rights.

Restructuring Public Finance and Banking System and Building Capacity for Macroeconomic Management

Although the North Korean economy has been monetized by circulation of both domestic and foreign currencies in market transactions and accumulation of household and enterprise savings, the North Korean public finance system and banking system have not adapted to the growing accumulation of privately held wealth and

income received by enterprises and individuals.

The tax system needs to be reformed to enable accumulation of public savings that can be passed through the budget to increase public expenditures in infrastructure, social services, and research that can spur economic development in a mixed-economy system. With the increased targeting of sanctions on economic activities that directly benefit the military, North Korea will feel increased pressure to obtain foreign exchange through non-sanctioned trade in the Peoples' Economy. It can transfer resources for military uses through the budget rather than continue the system of the military having its own economic foreign exchange earning silo of companies, banks and individual who are placed on international sanctions lists. While adapting such practices might help North Korea evade sanctions, it would fundamentally change the economic system that has privileged the military over civilian economic interests, strengthening the role of the Cabinet in national economic management.

The banking system also needs to be reformed to facilitate mobilization of private savings of enterprises and households, and intermediating investment in market-centered businesses. Corruption and black-market lending are filling a void left by a banking system that does not yet enjoy public trust and provides limited services. While enterprises are permitted to hold bank accounts and banks do play an increasingly important role in inter-firm payments, individuals are poorly served. Some innovative efforts to increase trust and take cash out of circulation have been undertaken, such as the growing use of debit cards, but progress has been slow. The adoption by the Supreme People's Assembly in April 2016 of a new anti-money laundering and antiterrorist financing law is a step toward building a financial system that aims to meet international standards. These standards are established by the OECD Financial Action Task Force for Anti-Money Laundering and requirements of its regional affiliate, the Asia Pacific Group.²³ Notably, the new law established the political and legal foundation for building a banking supervision function, which has been a major weakness in the North Korean financial system management. North Korea aspires to be a member of the Asia Pacific Group and was admitted as an Observer in 2015. Skeptics have doubted the willingness and ability of North Korea to meet international standards, but this does appear to be one area where there is a committed effort to improve the banking system legal framework. The law may not have any material impact on the

international financial sanctions that have been adopted under UN resolutions and by the U.S. Treasury decision to designate North Korea as a primary money-laundering concern, but it does send a signal of North Korea's willingness to move in the direction of introducing legal norms and transparency principles in its financial system.

Natural Resource Curse and Comparative Advantages

North Korea has relied on coal, iron, minerals, and seafood as its principal source of foreign exchange earnings, reflecting its substantial endowment of natural resources. The natural-resource curse common to other countries with similar bounty partly explains the orientation of the North Korean economic system from the beginning and why its trajectory has been so different from South Korea's, which is not so endowed and was forced to pursue a more proactive economic development model. To a large extent, privileged groups serving vested interests in the military and political leadership have built the North Korean economic system on control over these natural-resource export capabilities. In addition to earning foreign exchange, this exploitation of natural resources has served to buttress the self-reliance policies of industrial development and has been instrumental in undergirding North Korean socialism.

Today the domestic value-added to North Korea's natural resource exports remains low due to lack of investment capital, limited technology transfer, and low level of management expertise in international business. A major challenge for North Korea is finding ways to better exploit its natural comparative advantages and diversify its export earnings capacity by producing higher domestic valued-added in processing of its natural resources, making more efficient use of its labor force, and moving up the value chain in manufactured and knowledge-based products.

Modifying Risk Perceptions of Foreign Investors, Trading Partners and Banks

North Korea needs foreign investment and trade to set itself on a path to sustainable economic growth. This reality has been accepted by the economic planners and by Kim Jong-un in the support being given to the expansion of SEZs and intention to diversify foreign trade relationships, even in the face of sanctions. A fundamental challenge facing the economic system is how to reconcile this imperative, which

has been given added urgency with Kim Jong-un's public commitment to giving priority to economic development at the recent Party Congress, with the increasing pressures of sanctions to deny the North Korean economy access to both foreign investment and trade that benefits its military capabilities.

The dilemma is not only having to consider the policies of governments, but also the willingness of private-sector investors, trade partners, and banks that provide financial services to do business with North Korea. For private actors in the international economy, political and commercial risk perceptions are critical determinants of their behavior. These risks cannot be improved by North Korean aspirations and overtures alone, such as its advertising for SEZ investment opportunities and participation in trade fairs. Quite apart from sanctions designed to increase risk perceptions of the business community, North Korean business practices and reputation for reneging on agreements and loans have contributed significantly in the past to high-risk perceptions and adoption of strategies to mitigate these risks by those willing to Such strategies include competing engage with North Korea. transactions in China upon delivery of goods, requiring advance payments, and aligning business relations with politically connected partners. While North Koreans are making efforts to learn international business practices, come into compliance with standards for anti-money laundering and terrorist finance established by the Asia Pacific Group of the Financial Action Task Force, and are becoming more sophisticated in their outreach efforts, the overhang of the cloud of political risk and sanctions can be expected to severely limit their ability to resolve these challenges. A high-level political dialogue to address the deeper and long-standing security and political issues—such as negotiations leading to a peace accord and denuclearization—would be needed to accomplish a fundament reversal of North Korea's interactions with the international economy and re-orient the financial system to one based on transparency and respect for laws. In the absence of these steps, the prospect for a major surge in foreign investment and diversification of trade is highly unlikely. Nevertheless, North Korea has been creative and successful in avoiding the full impact of sanctions. The willingness of some countries to continue to do business with North Korea probably means that North Korea will continue to find ways to meet its essential needs for foreign exchange and achieve some modest economic growth through improved management of the domestic economy. It is hard to believe that

sanctions alone will be able to bring North Korea to the negotiating table to resolve international concerns about its nuclear program and other threats.

Integrating with the Regional Economy of Northeast Asia

The most politically complex challenge facing the North Korean economic system is how best to integrate with the dynamic market-based economies of Northeast Asia. One aspect of this is the challenge of inter-Korean economic relations and how the two very different political economies evolve towards a long-term stable relationship, with or without eventual unification. Another is how to build a new economic relationship with Japan—which represents both a large potential market for North Korean exports and important source of future investment capital—if relations were to normalize. A third aspect is how to deepen integration with an already broad economic relationship with China without becoming so tethered that North Korea cannot withstand shocks from downturns in the Chinese economy. Finally, how North Korea can participate in and benefit from coordinated regional investments in transport, energy, environmental management, tourism, and other areas that could leverage shared economic benefits from regional cooperation. Advances in regional economic integration are partly dependent on the willingness of neighboring countries to pursue coordinated economic engagement policies with North Korea, which has not been the case in the past, although the consensus on using economic sanctions to pressure North Korea to accept negotiations on its nuclear weapons program reflected in UNSCR 2270 seems to be a step in that direction. If political negotiations do reemerge as a practical possibility, the attractions of deepening regional economic integration are likely to be a productive area for discussion for the future stability and prosperity of Northeast Asia. Any such effort would require North Korea to accept principles of transparency and international accountability and adopt domestic economy policies and practices necessary to adapt the system to its

regional commitments. Inevitably, this would involve formal acceptance of the market economy and requirements for rule of law.

Implications for Future Economic Engagement Policies

At the heart of future engagement policies by North Korea's neighbors and the international community more generally is the

question of whether or not the ultimate objective is to help transform the North Korean economic system in ways that would help it be successful and accepted as a normal state in the international economy. The answer largely depends on how the security challenges posed by North Korea are addressed and resolved. The current trajectory of applying more pressure through sanctions is driving the North Korean economic system away from this objective. Only an abrupt turnabout by both North Korea and its antagonists could possibly lead to evolution of the system to one that would be broadly acceptable internationally. For the international community, the flip side of the engagement policy question is whether North Korea can achieve a minimally sustainable economic performance in the face of the increasing pressures of sanctions. Can it continue its rogue state existence in a way that satisfies domestic stability requirements for maintaining its security apparatus and satisfying the aspirations of the younger generation?

It is important to identify issues for a potentially productive course for future engagement that would be incentives for meaningful economic changes. Identifying changes that would broaden the role of markets and bring benefits to the North Korean people, as well as those that would align with priorities that have been set by the North Korean authorities and endorsed by the Party Congress, enhance the likelihood of success. Specifically, it is important to focus on components of the five-year economic development plan consistent with the objective of moving the North Korean economic system in a longer-term desirable direction. Engagement by academics and non-governmental organizations might help sharpen understanding of the current capacity and will of the North Korean authorities to work collaboratively with foreigners on these issues and bring outside influences to bear on internal debates and initiatives. If the will to pursue serious negotiations on the political and security challenges posed by North Korea does emerge, it should be possible to design an economic incentive framework to support those negotiations that is more robust, beneficial, and acceptable to North Korea today than humanitarian and economic incentives pursued in previous negotiation episodes.²⁴

Conclusion

If the North Korean economic system is viewed as an evolving work in progress, it must be acknowledged that it has learned to be tenacious and pragmatic as it confronts existential challenges in the real world. North Korea's economy has major vulnerabilities, but also resiliency and creativity. Can it be tamed and brought to heel? Can it be pressured into submission? These are the ultimate questions politicians and policymakers face today with North Korea. It is important to understand the formative influences and inner life of this economic system to see acceptable changes in behavior, while coming to grips with how the future of North Korea can evolve in ways that can be influenced, or at least tolerated.

Notes:

¹ Hazel Smith, "North Korea: Markets and Military Rule," Cambridge University Press, Cambridge, 2015, 136, footnote 1. "In 1962 Kim Il-sung had proposed that equal weight be allocated to military 'preparedness' and the civilian economy."

² Deok Ryoung-yoon and Bradley Ogden, Babson "Understanding North Korea's Economic Crisis," *Asian Economic Papers 1-3*, the Earth Institute at Columbia University and Massachusetts Institute of Technology, 2012, 71-72.

³ Ibid. 74.

⁴ Ibid.78.

⁵ A detailed summary of the ways that North Korea has succeeded in evading UN Security Council sanctions is documented in the report of the Panel of Experts dated February 22, 2016: www.undocs.org/s/2016/157.

⁶ "North Korea's housing market makeover: private ownership in vogue," Daily NK, December 24, 2015.

⁷ Examples are the business school program that the Swiss Development Cooperation ran for several years until the Swiss government revised its economic development assistance policy, the training programs that Chosun Exchange has conducted both inside and outside North Korea in recent years targeting young entrepreneurs and women, and the academic program sponsored by the University of British Columbia for professors from North Korean universities.

⁸ "New Economic University Opened in Pyongyang," *NK Brief 160428*, Institute for Far Eastern Studies, Kyungnam University, May 9, 2016.

http://ifes.kyungnam.ac.kr/eng/FRM/FRM0101V.aspx?code=FRM160509_0001

⁹ "Kim Ga-youn and Kim Chae-hwan, "North Korea's 'jangmadang' generation questions the necessity of the Party Congress," *DailyNK*, May 9, 2016. http://www.dailynk.com/english/read.php?num=13890&cataId=nk01500

¹⁰ For a detailed discussion of these laws see Bradley Babson, "Will North Korea's Plans for Foreign Investment Make it a More Prosperous Nation?" *38 North*, May 2, 2012.

¹¹ For a full discussion of the new SEZ initiatives see Bradley Babson, "North Korea's Push for Special Economic Zones: Fantasy or Opportunity," *38 North*, December 12, 2013

¹² For a good summary of UNSCR 2270 and its implications, see Andrea Berger, "New UNSC Sanctions Resolution on North Korea: A Deep Down Assessment," *38 North*, March 2, 2016. http://38north.org/2016/03/aberger030216/

¹³ Choi Song-min, "UN Sanctions Fail to Debilitate Kim Jong-un," *DailyNK*, April 19, 2016. http://www.dailynk.com/English-

read_print.php?catald=nk00300&num=13862&viewmode= Also, Choi Song-min, "Military Items Smuggled Through Chinese Customs Despite Sanctions," *Daily NK*, April 4, 2016. http://www.dailynk.com/English-

read_print.php?catald=nk01500&num=13839&viewmode= Also, Jane Perlez and Yufan Huang, "A Hole in North Korean Sanctions Big Enough for Coal, Oil, and Used Pianos," *New York Times*, April 1, 2016.

http://www.nytimes.com/2016/04/01/world/asia/north_korea_china-sanctions-trade.html ¹⁴ For a good discussion of the issues in the North Korea-China economic relationship see Peter Ward and Andrei Lankov, "China and North Korea's Economic Future," *NK NEWS*, February 16, 2016. http://www.nknews.org/2016/02/china-and-north-koreas-economic-future/

¹⁵ Unification Media Group, "Sanctions spell boom for private shoe manufacturers," *DailyNK*, April 1, 2016.

www.dailynk.com/english/read_print.php?catald=nk00100&num=13838&viewmode ¹⁶ Anna Fifield,"North Korea announces five-year economic plan, its first since the 1980's." *Washington Post*, May 8, 2016.

¹⁷ A good summary of the policy and its implications is Cheon Seong-Whun, "The Kim Jong-un Regime's 'Byungjin' (Parallel Development) Policy of Economy and Nuclear Weapons and the April 1 'Nuclearization Law,'" *Online Series CO 13-11*, Korea Institute for Korean Unification, April 23, 2013, http://www.kinu.or.kr/upload/neoboard/DATA01/co13-11(E). pdf.

18 Ibid.

19 Headlines About DPRK Agricultural Production Miss the Point", 38 North, May 6, 2016.

²⁰ Eric Talmadge, "Kim Jong-un says North Korea won't use nuclear weapons first," *The Associated Press*, May 8, 2016.

²¹ For a detailed analysis of the June 29 SPC meeting see, Michael Maddon, "The Forth Session of the 13th SPA: Tweaks at the Top," *38 North*, July 6, 2016. http://38north.org/2016/07/mmadden070616/

²² Yi Wan-woo,"NK leader named chairman of the Workers' Party," *Korea Times*, May 9, 2016.

²³ North Korea has been admitted as an Observer to the Asia Pacific Group of the OECD Financial Action Task Force and announced in January 2015 its intention to come in compliance with APG requirements. A task force was created and the Supreme People's Assembly adopted on April 20, 2016 a new law that prohibits money laundering and financing terrorism as a step in this process. "North Korea: Anti-Money Laundering Law Adopted," *Global Legal Monitor*, The Library of Congress, May 19, 2016. http://www.loc.gov/law/foreign-news/article.north-korea-anti-money-launddering-and-anti-terrorist-financing-law-adopted/?loclr=eaglm

²⁴ For a detailed discussion of possible economic incentives in future nuclear negotiations, see Bradley Babson, "Positive Economic Inducements in Future Negotiations with North Korea," *North Korea Nuclear Futures Series*, U.A.-Korea Institute, SAIS, December 2015.