

Stopping North Korea, Inc.:
Sanctions Effectiveness and Unintended Consequences

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Executive Summary

This study assesses the use of sanctions against North Korea, especially as they relate to Pyongyang's ongoing nuclear and missile programs. We address three main questions:

- 1) Do sanctions intended to reduce or halt WMD procurement work, and if not, why not?
- 2) What, if any, unintended consequences—positive or negative—do sanctions against North Korea generate?
- 3) What can be done to improve the effectiveness of these and other sanctions?

To answer these questions, we focus on what we call “North Korea, Inc.,” the system of regime-operated state trading companies (STCs) that the Democratic People's Republic of Korea (DPRK) employs to procure both licit and illicit goods. In particular, this study is based on interviews over a three-year period with North Korean defectors who worked in these procurement organizations. The primary objective of this inquiry has been to document North Korea, Inc.'s practices, partners, and pathways, and in particular how the DPRK has innovated in the face of international sanctions.

We conclude that sanctions intended to deny North Korea access to WMD-related materials have not worked, and that in some ways, the sanctions have had the net effect of actually improving DPRK procurement capabilities. We judge that some elements of its nuclear and missile programs will continue to depend on procurement from other countries, that sanctions can be improved, and that at least for the near and intermediate term, denial of weapons-related material and technology is a worthy policy objective, if integrated into a broader political strategy.

The analysis begins by noting the fact that sanctions, and especially targeted financial sanctions, have become an increasingly prominent foreign policy tool for nonproliferation and other policy domains. This has occurred despite the fact that academic research on the effectiveness of sanctions (and of sanctions on North Korea specifically) has generally raised questions about their efficacy. In a departure from traditional research, this study considers the question of effectiveness from two, new vantage points: 1) from the perspective of a North Korean STC manager trying to evade sanctions and 2) with an eye to possible unintended consequences that sanctions on the DPRK might generate (both negative and positive).

The study offers a number of new findings concerning how DPRK procurement has evolved over time, most especially in the late 2000s. It finds that North Korean STC managers have shifted their strategy by 1) hiring more capable Chinese middlemen who can more effectively handle financing, logistics, and doing business with private Chinese firms and foreign firms operating in China, 2) taking up residence and embedding themselves on the mainland, which increases their effectiveness, 3) expanding the use of Hong Kong and Southeast Asian regional commercial hubs, and 4) increasing the use of embassies as a vehicle for procurement.

The study considers ten potential unintended consequences that sanctions on North Korea might induce, including six potentially negative effects, two potentially positive effects, and two that could be either positive or negative, depending on the context. Of these, three are particularly noteworthy.

A first and negative unintended consequence is what we call the “sanctions conundrum,” that the net effect of sanctions has been to actually *increase* Pyongyang’s procurement capabilities. This counter-intuitive result is a consequence of the fact that when sanctions have been imposed, they have had the intended effect of raising the cost of doing business. Unfortunately, the DPRK has responded by simply monetizing the risk and paying higher commission fees to Chinese brokers. This, in turn, has drawn larger, more sophisticated partners.

A second but positive unintended consequence is that sanctions have helped spur the growth of a “compliance culture” among larger Chinese financial firms that want to avoid transgressing sanctions for fear of fines, damage to their business reputations, and downstream consequences for their ability to do business in the U.S. and other non-Chinese markets.

A third unintended consequence is not yet evident in practice, but bears watching: increased sanctions may have severe and negative consequences for the North Korean civilian, non-elite population—a group whose economic status may be fragile.

The report offers a set of eleven policy recommendations covering a variety of policy areas, including engaging China, capacity building, further encouraging a culture of corporate compliance, disrupting North Korea, Inc., and new modes of information collection and analysis.

The policy recommendations include:

- 1) Encourage China to use its domestic laws as a vehicle to go after DPRK STCs.
- 2) Encourage China to send signals to its private industry: licit commerce is acceptable; illicit WMD-related business is not.
- 3) Improve the capacity of national governments, especially in Southeast Asia to implement sanctions.
- 4) Build the capacity of the U.S. government to respond to the misuse of DPRK embassies for procurement.
- 5) Augment the capacity of the UN Panel of Experts on North Korea.
- 6) Encourage a culture of compliance by prosecuting high profile cases.
- 7) Experiment with the use of incentives.
- 8) Disrupt North Korea, Inc.’s operations in order to reduce scope, size, and tenure of STC managers.
- 9) Analyze DPRK procurement as a business case study, including the use of game simulations and testing potential sanction concepts with the STC defector community.
- 10) Employ new models for analysis, e.g., comparing DPRK illicit procurement against other state and non-state entities that also seek to evade sanctions.
- 11) Adopt an evidence-based and outcomes-focused approach to evaluation of sanctions.

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I. Sanctions and the Challenge of North Korea's Illicit Weapons Programs

This study assesses the use of sanctions against North Korea, especially as they relate to Pyongyang's ongoing nuclear and missile programs.¹ We address three main questions:

- 1) Do sanctions intended to reduce or halt WMD procurement work, and if not, why not?
- 2) What, if any, unintended consequences—positive or negative—do sanctions against North Korea generate?
- 3) What can be done to improve the effectiveness of these and other sanctions?

To answer these questions, we focus on what we call “North Korea, Inc.,” the system of regime-operated state trading companies (STCs) that the Democratic People's Republic of Korea (DPRK) employs to procure both licit and illicit goods. In particular, this study is based on interviews with North Korean defectors who worked in these procurement organizations. While the primary object of inquiry are North Korea, Inc.'s practices, partners, and pathways, this analysis is also more broadly concerned with nonproliferation policymaking, sanctions as an instrument of foreign policy, and the future of the North's weapons programs.

We conclude that sanctions intended to deny North Korea access to WMD-related materials have not worked, and that in some ways, the sanctions have had the net effect of actually improving DPRK procurement capabilities. We judge that some elements of its nuclear and missile programs will continue to depend on procurement from other countries, that sanctions can be improved, and that at least for the near and intermediate term, denial of weapons-related material and technology is a worthy policy objective.

To be clear, a judgment as to whether sanctions are or can be effective depends very much on how one defines the objective. As discussed in the section on recommendations, sanctions can serve any number of objectives, including denial of materials, technology, and capabilities; coercion; bargaining; punishment; and regime change. *The focus of this study is denial, i.e., reducing and halting the ability of the DPRK to procure items that would advance its weapons programs.*

¹ This study would not have been possible without significant research, editorial, and writing contributions from Timothy MacDonnell, Lena Andrews, and Elsa Kania. Debt is also owed to the many scholars and experts who reviewed this monograph (Aaron Arnold, Matthew Bunn, Bryan Early, Gary Samore, Jacqueline Shire, Joshua Stanton, Daniel Wertz, and others), to the Harvard-MIT Working Group on North Korea (especially the late Amb. Stephen Bosworth), participants and speakers in the MIT North Korea seminar series, organizations that hosted presentations of the study (e.g., U.S. Institute of Peace, Council on Foreign Relations, Peterson Institute for International Economics, UN Panel of Experts, and National Bureau of Asian Research), the MacArthur Foundation, the Stanton Foundation, as well as Angela Nichols and Pamela Park. Reference to an individual or organization does not imply endorsement. Our errors are our own despite their best efforts.

Even when effective, sanctions are not an answer unto themselves. They can be useful in combination with other policy instruments, when they are integrated into a broader political strategy. A “sanctions only” policy will not succeed. The purpose of this study, therefore, is to better understand North Korea, Inc., so that the U.S. and its partners can pursue a more effective sanctions strategy that, when incorporated into a broader strategy, can slow, freeze, and ultimately reverse North Korea’s nuclear and missile programs.

This section provides the context. It begins by examining the increasingly prominent role that sanctions play in American foreign policy and in nonproliferation policy, in particular. It surveys the current state of scholarly research on sanctions, including sanctions on North Korea, and concludes with a brief description of the research method used in this study.

Section II introduces North Korea, Inc. It discusses the evolution of these procurement organizations and their role in subverting nonproliferation sanctions.

Section III highlights the potential positive and negative unintended consequences of North Korea sanctions. Positive unintended consequences include the creation of a “market for compliance” and North Korean elite engagement with the outside world. Negative unintended consequences include improved North Korean capabilities for sanctions subversion and the possibility that general sanctions on the economy would threaten a vulnerable civilian population.

Section IV presents the project’s main policy recommendations. These cover several areas, including engaging China, capacity building, further encouraging corporate “compliance culture,” disrupting North Korea, Inc., and alternative approaches to information collection and analysis.

Section V summarizes the findings.

The Central Role of Sanctions

Governments have long used sanctions to punish, to deny access to goods and services, and to deter others who might contemplate objectionable behavior.² Sanctions have been in use for at least 2,400 years.³ In the modern era, they have evolved from a blunt instrument intended to hurt

² For a useful overview of sanctions as an instrument of foreign policy, see Chan, Steve, and A. Cooper Drury. *Sanctions as economic statecraft: theory and practice*. St. Martin’s Press, 2000; and Kirschner, Jonathan. “The Microfoundations of Economic Sanctions,” *Security Studies* 6, no. 3 (March 1997): 32-64. For a discussion of the efficacy of sanctions, see Miller, Nicholas L. “The Secret Success of Nonproliferation Sanctions.” *International Organization* 68, no. 4 (October 2014): 913–44. doi:10.1017/S0020818314000216; Elliott, Kimberly Ann. “The Sanctions Glass: Half Full or Completely Empty?” *International Security* 23, No. 1 (Summer 1998): 50-65. For a recent survey of sanctions research, see *Coercive Diplomacy, Sanctions and International Law*. Ronzitti, Natalino, ed. Leiden: Brill Nijhoff. 2016

³ See for example the discussion of the Megarian Decree in Thucydides. *The History of the Peloponnesian War*, Warner, Rex, trans., Penguin, 1954, 1.139.

a country's economy to increasingly targeted efforts aimed at individuals and organizations.⁴ They have been employed by national governments, unilaterally and multilaterally, to target an array of entities—governments, non-state actors, individuals, corporations—and to address a wide range of issues, including nonproliferation, democracy and human rights, counter-terrorism, cyber-attacks, the trade in conflict diamonds, narcotics, and criminal activity.⁵

In recent years, the use of sanctions has become more common, more sophisticated, and more fully institutionalized. This is particularly true in the United States.⁶ In an era when there is less enthusiasm for large-scale applications of military force, and when diplomacy requires sitting down with objectionable regimes, sanctions offer policymakers a relatively cheap and easy way to “do something” about a problem, whether it is North Korea's nuclear and missile tests or Russia's intervention in Ukraine. As one executive branch official noted, sanctions have “...become even more important to coerce and constrain the behavior of non-state networks and recalcitrant, rogue regimes, which often appear beyond the reach of classic U.S. power or influence.”⁷

The growing importance of individuals, corporations, and other non-state actors in international affairs provides a complementary explanation for the increasing popularity of sanctions. Entirely new kinds of sanctions have been developed, and they have been applied in novel ways. In particular, the U.S. has pursued authority for secondary or extraterritorial banking sanctions that leverage the dominant role of the U.S. dollar in the international financial system. Washington has twice used these sanctions to penalize foreign banks for doing business with a sanctioned entity, but the threat of these sanctions has had an outsized impact on parts of the international banking system.⁸

To implement these increasingly sophisticated sanctions, the Department of the Treasury has built an unprecedented and formidable organization for sanctions enforcement.⁹ For its part, the

⁴ Friedman, Uri. “Smart Sanctions: A Short History.” *Foreign Policy* no. 193 (May 2012): 1-5.

⁵ Hufbauer, Gary Clyde, Jeffrey J. Schott, and Kimberly Ann Elliott. *Economic sanctions reconsidered: History and current policy*. Vol. 1. Peterson Institute, 1990.

⁶ Giumelli, Francesco. “Understanding United Nations targeted sanctions: an empirical analysis.” *International Affairs* 91, no. 6, 2015: 1351-1368; Drezner, Daniel W. “Off Target.” *New Republic* 241, no. 8 (May 27, 2010): 5-8.

⁷ Zarate, Juan C. “Harnessing the Financial Furies: Smart Financial Power and National Security.” *Washington Quarterly* 32, no. 4 (October 2009): 43.

⁸ The Bank of Kunlun (China) and the Elaf Islamic Bank (Iraq). Arnold Aaron. Communication with the authors, July 2016.

⁹ The U.S. Treasury Department's Office of Foreign Assets Control (OFAC) was established in 1950, but has grown considerably in size, capabilities, and influence in the past decade. See U.S. Department of the Treasury, “Office of Foreign Assets Control,”

<https://www.treasury.gov/about/organizational-structure/offices/Pages/Office-of-Foreign-Assets-Control.aspx>.

United Nations has augmented its sanctions architecture with the use of Panels of Experts that report to the Security Council on sanctions implementation.¹⁰

Sanctions are particularly attractive to the American Congress. They represent an area where Capitol Hill can take the lead in foreign policy, a domain traditionally dominated by the executive branch. The perceived value of sanctions among Congressional policymakers has only increased since the successful negotiations with Iran over its nuclear program. Most observers credit sanctions for helping push Tehran to the negotiating table, but many in Congress went further, arguing that additional sanctions would have forced Iran to capitulate.

In sum, a number of factors have contributed to what appears to be growing interest in sanctions. In this environment, sanctions will likely continue to be a popular tool of foreign policy for nonproliferation and a host of other issues.

Are Sanctions Effective? A Summary of the Social Science Research

Analysts trying to measure the impact of sanctions, including targeted sanctions, face a number of difficult challenges. Fundamentally, there is the issue of defining what constitutes a “success” and a “failure” and over what time horizon. In the case of North Korea, sanctions clearly have not prevented progress in the North’s weapons programs, but advocates can, not unreasonably speculate that sanctions may have slowed Pyongyang’s march, and that absent sanctions, the DPRK regime’s arsenal would be larger and more sophisticated.¹¹

Another complication is the dizzying variety of cases. Sanctions have been imposed across disparate issues, with differing punishments, over various time spans, and by varying coalitions of countries. There are also a wide variety of sanctions: trade-based sanctions, travel bans, and arms embargos, to name a few.¹² The variation across cases makes it difficult to generalize about the efficacy of sanctions. And, of course, there are data problems. Entities targeted by sanctions are often closed countries or organizations, where the available data for standard measures is missing or unreliable.

These challenges have not prevented scholars from tackling the issue, however. There is a rich and growing research literature on sanctions. Much of this research consists of case studies.¹³

¹⁰ The UN currently has several such panels, including one that focuses on North Korea. On the UN panel for North Korea, see United Nations Security Council Resolution 1874. June 12, 2009. http://www.un.org/ga/search/view_doc.asp?symbol=S/RES/1874%282009%29.

¹¹ Some make the opposite argument, that ongoing negotiations with North Korea may have slowed their nuclear and ballistic missile programs. By implication, sanctions may have done more harm than good. See e.g., Wit, Joel S. “Enhancing U.S. Engagement with North Korea.” *Washington Quarterly* 30, no. 2 (Spring 2007): 53-69.

¹² Another issue is timing. Joshua Stanton has suggested that new types of sanctions developed in the last decade make older studies of sanctions effectiveness less relevant. Communication with the authors, July 2016.

¹³ Miller, Nicholas L. “The Secret Success of Nonproliferation Sanctions;” Hufbauer et al. *Economic sanctions reconsidered: History and current policy*.

Scholarly research on the utility of sanctions can be plotted on a continuum between ‘sanctions optimists’ and ‘sanctions skeptics.’ Optimists argue that sanctions are “underrated” and often are “more effective than most analysts suggest.”¹⁴ Skeptics argue that sanctions are not particularly useful, or that they may cause more harm than good.

Sanctions optimists point to several cases that appear to have been effective, including sanctions on Libya (terrorism, proliferation), Iran (proliferation), South Africa (human rights), and a U.S.-organized boycott of Iraqi oil after Saddam Hussein’s invasion of Kuwait.¹⁵

Lesser known cases of possible success include U.S. and Canadian sanctions on South Korea in 1975 that resulted in Seoul’s cancellation of a planned reprocessing plant; U.S. sanctions on El Salvador in 1987, which successfully resulted in that country’s agreement not to release prisoners accused of killing Americans;¹⁶ and Indian sanctions on Nepal in 1989, after which Nepal subsequently agreed not to buy weapons from China.¹⁷ Liberia and Yugoslavia have also been cited as UN sanctions successes.¹⁸

¹⁴ Rogers, Elizabeth S. “Using economic sanctions to control regional conflicts.” *Security Studies* 5, no. 4 (1996): 43-72.

¹⁵ Martin, Lisa L. “Credibility, costs, and institutions: Cooperation on economic sanctions.” *World Politics* 45, no. 03 (1993): 406-432.

¹⁶ Pape, Robert A. “Why economic sanctions do not work.” *International Security* 22, no. 2 (1997): 90-136.

¹⁷ Ibid.

¹⁸ McMahan, Robert. *UN Sanctions: A Mixed Record* (Backgrounder). Council on Foreign Relations. November 17, 2006. <http://www.cfr.org/international-organizations-and-alliances/un-sanctions-mixed-record/p12045#p3>.

Box 1. How Do Sanctions on North Korea Compare to Those Imposed on Iran?

Iran and North Korea have both faced U.S. and international sanctions. Sanctions on the two have varied, in part, because of the countries' different economic circumstances.¹⁹ Iran depends on international sales of oil, while North Korea relies on the sale of coal and commodities to China. Because of the global nature of oil sales and Iran's close ties to the international financial system, Tehran was vulnerable to the application of targeted sanctions.²⁰

In contrast, North Korea's coal and commodities trade is concentrated on a primary client nation—China. Encouraging UN member states to refrain from purchases of North Korean coal has little impact, as most countries do not buy North Korean coal. In addition, coal sales for the purpose of economic development (rather than in support of prohibited weapons programs) are specifically exempted from international sanctions, as codified in United Nations Security Council Resolution (UNSCR) 2270.

Recently, the U.S. government designated North Korea as a “primary money laundering concern,” thus triggering a new set of financial sanctions. The European Union, Russia, and other countries have also announced new financial sanctions, consistent with the obligations of UNSCR 2270.²¹

Many have welcomed these new measures, but North Korea's reliance on the coal trade with China minimizes its engagement with the global financial system. The North Korean regime's onshore accounts inside of the Chinese national economy place them largely outside of the reach of financial sanctions related to SWIFT and other mechanisms. Chinese customers directly pay China-based North Korean state trading companies for their purchase of North Korean coal. The North Korean entities then deposit those funds into onshore accounts.²² The absence of transnational settlement of payments helps the North avoid SWIFT-centered actions. Compared to North Korea, Iran's greater integration into the global economy makes it far more vulnerable to U.S. and international sanctions.²³

¹⁹ Eckert, Sue and Thomas Biersteker. *The Impacts And Effectiveness Of UN Nonproliferation Sanctions: A Provisional Report on the Targeted Sanctions on Iran and North Korea*. International Security Research and Outreach Programme, International Security and Intelligence Bureau. 2012. http://www.international.gc.ca/arms-armes/assets/pdfs/Report-CCDP_Sanctions.pdf

²⁰ Iran Project, “Weighing the Benefits and Cost of International Sanctions against Iran.” New York: The Iran Project. December, 2012: 1-86. <https://www.scribd.com/document/115678817/IranReport2-120312-2>; Gary Samore. *Sanctions Against Iran: A Guide to Targets, Terms, and Timetables*. Report for Belfer Center for Science and International Affairs, Harvard Kennedy School, June 2015. <http://belfercenter.ksg.harvard.edu/files/Iran%20Sanctions.pdf>.

²¹ Perlez, Jane. “US Sanctions Expected to Hit Small Banks' Business with North Korea.” *The New York Times*, June 3, 2016. <http://www.nytimes.com/2016/06/04/world/asia/us-sanctions-expected-to-hit-small-banks-business-with-north-korea.html?action=click&pgtype=Homepage&module=well-region®ion=bottom-well&WT.nav=bottom-well&hpw&rref=world&r=0>; European Council. “North Korea: EU Adopts New Restrictions on Trade, Financial Services, Investment and Transport.” May 27, 2016. <http://www.consilium.europa.eu/en/press/press-releases/2016/05/27-dprk-new-restrictions/>; “Russian Central Bank Halts Dealings with N. Korea.” *The Chosun Ilbo*, July 9, 2016. http://english.chosun.com/site/data/html_dir/2016/05/23/2016052301327.html.

²² July 2014 research interviews with defectors in Seoul.

²³ Wertz, Daniel and Ali Vaez. “Sanctions and Nonproliferation in North Korea and Iran: A Comparative Analysis.” *FAS Issue Brief*, June 2012.

The sanctions skeptics point to their own set of cases: U.S. sanctions against Cuba, Sudan, and China over human rights; UN sanctions against the Taliban in 2001 and 2010; sanctions against Rhodesia, which caused white Rhodesians to rally behind their government; among others.²⁴ Some analysts have suggested that recent sanctions against Syria and Russia have also been unsuccessful, but it would appear too early to make an assessment.²⁵

Given the significant variation across countries, sanctions regimes, and other factors, it is difficult to make generalizations about the effectiveness of sanctions using case studies alone. To overcome this problem, some scholars have turned to medium- and large-n studies. The view from this ‘wide angle’ approach to the study of sanctions is not generally encouraging. As one study concluded, “economic sanctions have little independent usefulness for pursuit of noneconomic goals.”²⁶ Even where sanctions appear to have been effective, skeptics have argued that those successes are mostly attributable to other factors (e.g., the threat of military force). In one study, a researcher identified only five clear cases out of 115 attempts in which sanctions alone were successful.²⁷ In recent years, the emergence of new, targeted sanctions has gained momentum, but there is “no systematic evidence that smart sanctions will yield better policy results.”²⁸

The dispute over the efficacy of sanctions remains unresolved. Indeed, this seemingly simple question may in fact be so broad and complex that clear, straightforward answers will remain elusive. Regardless, the existing literature on sanctions does offer lessons. First, sanctions are more likely to be successful when their goals are limited and clearly defined.²⁹ Second, they are

http://www.ncnk.org/resources/publications/Comparative_Iran_North_Korea_Sanctions.pdf?searchterm=sanctions.

²⁴ Cortright, David and George A. Lopez. *The Sanctions Decade: Assessing UN Strategies in the 1990s*. Lynne Rienner Pub. 2000.

²⁵ Ashford, Emma. “Not So-Smart Sanctions: The Failure of Western Restrictions Against Russia.” *Foreign Affairs* 95 no. 1. (January/February 2016).

<https://www.foreignaffairs.com/articles/russian-federation/2015-12-14/not-so-smart-sanctions>.

For a more positive view of the effect of sanctions on Russia and Syria, see Rosenberg, Elizabeth, Zachary K. Goldman, Daniel Drezner, Julia Solomon-Strauss. “The New Tools of Economic Warfare: Effects and Effectiveness of Contemporary U.S. Financial Sanctions.” Center for a New American Security, April 15, 2016, pp. 23-25. <http://www.cnas.org/new-tools-of-economic-warfare#.V2Nezlc3Fzcv>

²⁶ Pape, Robert A. “Why economic sanctions do not work.”

²⁷ Ibid.

²⁸ Drezner, Daniel W. “Sanctions sometimes smart: targeted sanctions in theory and practice.” *International Studies Review* 13, no. 1 (2011): 96-108. More recently, Rosenberg et al found that contemporary financial sanctions do not have a strong impact on traditional economic measure like GDP growth but do affect other economic activity such as private investment. It is worth repeating that the real measure of sanctions effectiveness is not the ability to impose costs but rather the capacity to alter state behavior. Rosenberg, et al. “The New Tools of Economic Warfare: Effects and Effectiveness of Contemporary U.S. Financial Sanctions,” 15.

²⁹ Eckert, Sue and Thomas Biersteker. *The Impacts And Effectiveness Of UN Nonproliferation Sanctions: A Provisional Report on the Targeted Sanctions on Iran and North Korea*.

more likely to be effective when the targets are friendly or democratic countries.³⁰ Third, when a political consensus and commitment is achieved, multilateral sanctions are generally more powerful than purely national sanctions.³¹

Research on North Korea Sanctions

The academic literature on sanctions suggests that policymakers should temper their expectations. Sanctions have been effective in some cases, and they have not been effective in many others. Certain characteristics of the sanctions regime or the target state may make sanctions more or less efficacious. As regards North Korea, in particular, the research provides cause for caution. North Korea has some attributes that make it more susceptible to sanctions (e.g., dependence on China), as well as others that make it less so (e.g., lack of exposure to international financial institutions). Given the opaque nature of the DPRK, scholars face an especially demanding challenge when trying to assess the impact of sanctions. Despite the obstacles, a number of analysts have examined the effects of sanctions on the Hermit Kingdom.³²

The research literature on North Korea sanctions roughly falls into three schools of thought regarding their effectiveness in halting North Korea's weapons of mass destruction (WMD) programs, though most assessments are skeptical about the influence of sanctions on North Korea.³³

The first school posits that despite the conventional wisdom that North Korea is the world's most heavily sanctioned country, there is a great deal of room for expanding sanctions. Stanton and Lee are strong proponents of this viewpoint.³⁴ A second school argues that sanctions on North

³⁰ Hufbauer et al. *Economic Sanctions Reconsidered*, 3rd Edition, 2009.

³¹ Martin, Lisa L. *Coercive cooperation: Explaining multilateral economic sanctions*. Princeton University Press, 1993. Other researchers have found that as a sanctions regime expands in size, so does defection. Early, Bryan and Robert Spice. "Economic Sanctions, International Institutions, and Sanctions Busters: When Does Institutionalized Cooperation Help Sanctioning Efforts?" *Foreign Policy Analysis* (2014), 0, 1-22.

³² National and international sanctions are not the only instruments that are employed to deny the DPRK access to weapons-related goods. There is an extensive system of national laws that are intended to deny the export or impede the import of sensitive technologies. In addition, there are national policy initiatives aimed at blocking the financing, transport, and other aspects of WMD procurement. There are also multilateral regimes whose purpose is to prevent the transfer of nuclear and missile technology, including the Nuclear Suppliers Group, the Missile Control Technology Regime, the Proliferation Security Initiative, and International Atomic Energy Agency (IAEA) safeguards, among others.

³³ Drezner, Daniel W. "Sanctions Sometimes Smart: Targeted Sanctions in Theory and Practice." *International Studies Review* 13, no. 1 (March 2011): 96-108; Rosenberg et al. "The New Tools of Economic Warfare: Effects and Effectiveness of Contemporary U.S. Financial Sanctions," 58; Kang, David. "An Interview with David Kang: The New Sanctions Regime against North Korea and Its Implications for U.S. Policy." Interviewed by Claire Chaeryung Lee. *Policy Q & A*. National Bureau of Asian Research, March 17, 2016.

³⁴ Lee, Sung-Yoon and Joshua Stanton, "Make Pyongyang Pay – Stop North Korea by hitting it where it hurts: its wallet," *Foreign Policy*, February 10, 2016; Stanton, Joshua. "North Korea:

Korea have been largely ineffective due to the lack of sanctions implementation. Despite being obligated to implement UNSCR sanctions, the track record shows that many UN members have not done so. Without follow through, most analysts expect that North Korea-focused sanctions will continue to be ineffective.³⁵ A third school focuses on the larger macroeconomic trends and the trading relationship between North Korea and China. Noland and Haggard show that trade with China provides a coping mechanism for the North Korean regime.³⁶ Highly skeptical of Chinese implementation of DPRK-focused sanctions to begin with, Noland and Haggard note that the growing opportunities for North Korean entities to draw on credit from Chinese partners insulates North Korean state trading companies from the reach of sanctions. Early's *Busted Sanctions* focuses on the role of private Chinese companies that have been effective "third-party spoilers" in procuring illicit components.³⁷

Many of the concerns raised by each of these schools are echoed in the findings of the UN Panel of Experts. The Panel, whose charge is to monitor and report on international sanctions against the North, provides perhaps the most authoritative source on the implementation and effectiveness of DPRK sanctions. Established by the UN Security Council in 2009, the Panel has periodically reported to the Security Council with analysis and recommendations. Its February, 2016 report identifies a number of problem areas in the current sanctions regime. The shortcomings include a lack of reporting by member states (both "a low rate of reporting" and "the poor quality and lack of detail" in reports that are filed), the absence of regular inspection and seizure, and the need for domestic implementing legislation. More generally, the Panel finds a "lack of capacity and political will" to aggressively pursue the sanctions. The result, says the Panel, is that "sanctions have not prevented the Democratic People's Republic of Korea from gradually improving and expanding its nuclear and ballistic missile capabilities."³⁸

This conclusion should not come as a surprise. In addition to the collective action problems inherent in a sanctions regime, the limited capacities of some states, and differing political interests among the relevant parties, there are basic structural issues that make enforcement difficult.

The Myth of Maxed-Out Sanctions." *Fletcher Security Review* 2, No. 1 (21 January 2015). <http://www.fletchersecurity.org/#!stanton/c1vgi>

³⁵ U.S. Government Accountability Office. "United States Has Increased Flexibility to Impose Sanctions, but United Nations Is Impeded by a Lack of Member State Reports." Washington, DC: U.S. Government Printing Office, May 2015. <http://gao.gov/assets/680/670170.pdf>; Eckert, Susan. "United Nations Sanctions on DPRK: Implementation Evasion, and Opportunities to Strengthen." Providence: Watson Institute for International and Public Affairs. June 15, 2015, 1-16.

³⁶ Haggard, Stephan and Marcus Noland. "Engaging North Korea: the efficacy of sanctions and inducements," in Etel Solingen, ed., *Sanctions, Statecraft, and Nuclear Proliferation* (Cambridge: Cambridge University Press, 2012), 241-243.

³⁷ Early, Bryan. *Busted Sanctions: Explaining Why Economic Sanctions Fail* (Stanford, CA: Stanford University Press, February 2015).

³⁸ Report of the Panel of Experts established pursuant to resolution 1874 (2009). February 24, 2016; 10, 11, 65. http://www.un.org/ga/search/view_doc.asp?symbol=S/2016/157.

The first is simple geography. The DPRK sits astride China, the second largest economy in the world and until recently, a country enjoying double-digit rates of economic growth. The simple fact that the North shares a permeable 875-mile border with an economic powerhouse makes the task of isolating North Korea more difficult.³⁹

A second unalterable reality is economic, namely that North Korea is pursuing its weapons programs at a moment in history that is characterized by the rise of globalization, international and intra-regional trade, and decentralized and distributed manufacturing. These trends have had transformative effects on the economies of Asia, but it is an ecosystem that has created new opportunities for North Korea to pursue the procurement of weapons-related technologies.

Third, given the volume of international trade, especially in East Asia, there are limits to what can be physically inspected. It is simply not reasonable to expect that customs officials can physically inspect even a fraction of what passes through ports and other transit points.⁴⁰

In sum, most assessments of sanctions on North Korea conclude that Pyongyang has been able to evade international constraints and continue its pursuit of banned weapons systems.⁴¹ Moreover, the January, 2016 nuclear test and the subsequent February satellite launch suggest that the North's capabilities are advancing, even if slowly.⁴² What is particularly striking about North Korea's improving capabilities is that it they have continued, or perhaps even accelerated, in the face of Washington's increasing application of sanctions. As the U.S. has stepped up its pressure, the DPRK has responded, adapted, and become even more skilled at evading sanctions.⁴³

³⁹ Albert, Eleanor, and Beinz Xu. "The China-North Korea Relationship." *CFR Backgrounder*, February 8, 2016. <http://www.cfr.org/china/china-north-korea-relationship/p11097>.

⁴⁰ Bliss, Jeff. "U.S. Backs off All-Cargo Scanning Goal with Inspections at 4%." *Bloomberg*, August 13, 2012. <http://www.bloomberg.com/news/articles/2012-08-13/u-s-backs-off-all-cargo-scanning-goal-with-inspections-at-4->; McNeill, Jena Baker, and Jessica Zuckerman. "The Cargo Screening Clog: Why the Maritime Mandate Needs to Be Re-examined." *The Heritage Foundation Backgrounder* #2357. January 13, 2010. <http://www.heritage.org/research/reports/2010/01/the-cargoscreening-clog-why-the-maritime-mandate-needs-to-be-reexamined>.

⁴¹ See for example, Rosenberg et al. "The New Tools of Economic Warfare: Effects and Effectiveness of Contemporary U.S. Financial Sanctions," 58.

⁴² The January nuclear test, while unlikely to have been a test of a hydrogen bomb as the DPRK claimed, was nonetheless a successful, if small, nuclear test that may have used a fission-fusion design. And the results from the satellite launch suggest modest improvement in North Korea's long-range rocket technology: it can carry a heavier payload farther into the Earth's atmosphere. Other reports regarding warhead miniaturization, tests for a submarine launched ballistic missile program, test of an engine for an ICBM, a successful test of an intermediate range rocket, and progress with solid-fueled rockets—while not fully assessed—suggest potential areas of DPRK progress.

⁴³ As Bryan Early points out, "North Korea was subject to U.S. sanctions for decades even before the international sanctioning effort started. They learned a lot and had a long-established procurement network in place to build upon when the sanctions against the regime were

What's Missing? Alternative Perspectives on North Korea Sanctions

Previous research on North Korea sanctions has provided a useful picture of the political, institutional, and other barriers that undermine sanctions. Its conclusions are consistent with the historical track record, which points to North Korea's increasing nuclear and missile capabilities even in the face of increasing sanctions.

Still, there are aspects of North Korea sanctions that have received less attention and that could strengthen our understanding of the problem and what to do about it. This study focuses on two such areas.

The first is looking at the phenomenon of DPRK sanctions *from a North Korean perspective*. Much of the research on DPRK sanctions is directed at countries *other* than North Korea, i.e., the countries imposing (or not imposing) sanctions. Instead, one can focus on how North Korea has *responded* with tactics to evade sanctions. Sanctions can be thought of as a multi-move, iterative game of action and adaptation.⁴⁴ Any given set of sanctions may be less important than the adaptation that is adopted by the targeted country and the ability of the sanctioning parties to respond to that adaptation. In short, this study looks at evasion by the sanctioned rather than implementation by the sanctioners.

Second, one can go beyond the initial question of whether sanctions are effective or ineffective and instead consider a broader range of possible outcomes. In principle, sanctions, like any policy instrument, could at any given point make things better, have no impact, or make matters worse. In a sanctions context, that translates into 1) reducing the North's ability to procure weapons technology, 2) having no impact on the North's procurement capacity, or 3) unintentionally advancing the North's weapons programs.

How this Study was Conducted

To understand the evolving North Korean response to national and international sanctions, this research project interviewed North Korean defectors with operational knowledge of the DPRK's commercial and procurement practices. Among the more than 30,000 North Korean defectors now residing in South Korea, there is a small group of former North Korean state trading company managers. These operators conducted procurement and sales activities directly for the North Korean regime.

strengthened. No other country in the world has had more experience in developing strategies for circumventing sanctions than North Korea.” This would seem to be particularly relevant (and reason for reflection) given the new emphasis on financial sanctions and the DPRK's early experience involving Banco Delta Asia. As Joshua Stanton notes, “Banco Delta Asia and the relaxation of pressure in 2007 ended up being a terrific training exercise for Bureau 39. They have burrowed down. So while they continue to use banks that run NK transactions through correspondent accounts in the U.S., they are effectively concealing the beneficial owners of many of those accounts.” Early, Bryan. Communication with the authors, July 2016. Stanton, Joshua. Communication with the authors, July 2016. On Banco Delta Asia, see footnote 51.

⁴⁴ For an example of a formal game theoretic model, see Morgan, Clifton T. and Bapat, Navin “Imposing Sanctions: States, Firms, and Economic Coercion.” *International Studies Review* (2003) 5(4), 65–79.

For this study, more than 40 interviews with a dozen STC managers were conducted. All who were interviewed had worked for North Korean companies sometime within the last three years of the interviews (2010-2012). Interviewees were asked about how STCs function. How were contracts negotiated? How was insurance obtained? How does a DPRK trading company partner with a private Chinese company, and what are the responsibilities of the Chinese partners? What methods are employed for payment and delivery?

Given the limited pool of defectors with experience in North Korean trading companies, the research design used here is less a survey than it is a business case study—an attempt to a) document the pathways, partners and practices the DPRK uses for procurement, and b) chart the ways in which the DPRK regime's behavior has evolved (and remained the same) over time.

A second set of interviews was directed at policymakers and commercial firms in the region, including China, South Korea, Hong Kong, and Singapore. The goal of the interviews was to learn about North Korean processes and practices, but also to better define the governmental and commercial contexts in which sanctions and illicit procurement operate.

These interviews have greatly enhanced our knowledge of how North Korea, Inc. operates, but it is important to underscore the limits and uncertainties in this initial research. First, while the interview data represents the largest, non-classified pool of interviews on North Korean STC managers, the number of officials interviewed is necessarily small. STC managers make up a tiny fraction of the total pool of defectors. It also represents a snapshot in time—how STC managers in a particular cohort behaved. It is hoped that additional research in this area will reach more North Korean defectors and generate a time series that allows scholars to observe the evolution of STC behavior. This will be critical insofar as one of the core findings of this study is that sanctions should be thought of as an iterative game in which the target country will innovate and adjust in response to actions taken by sanctioning governments.

Finally, this initial interview series cannot answer every question the researchers would have liked to address. There are limits on the number and depth of the subjects one can explore, and in conducting the research, one learns new information and understandings that can only be used in subsequent interview series. So, for example, while the interviews undergirding this study cover procurement activities that include both licit and illicit commerce, we cannot with precision distinguish between illicit goods that were on control lists versus catchall lists versus other dual use technologies and materials. We can say with confidence, however, that even this modest effort has generated new insights and new ways of thinking about the challenge of the DPRK's illicit procurement.

II. North Korea, Inc.: The Evolution of North Korea's State Trading Companies

The North Korean regime procures a wide variety of goods and services from international markets. Some of this procurement, including everyday items used by the general population, is legal. Other procurement is illegal, because it contravenes UN, U.S., or other sanctions. Illegal procurement involves either proscribed goods and services (e.g., nuclear and missile related technologies) or designated individuals and entities that have been banned from participating in international commerce.

The people who procure goods and services, legally and illegally, on behalf of the North Korean regime, mainly work for North Korean STCs. It is their job to find sellers and partners and to arrange for the delivery of procured items to the DPRK. STCs are at the heart of North Korea's efforts to circumvent international sanctions. Consequently, this study focuses primarily on their activities.

This section examines how North Korean STCs have operated over time. It first looks at STC practices prior to 2000 and then STC behavior after 2000. It concludes with an assessment of how Pyongyang's practices have evolved: what has changed and what has remained the same over time.

The Origins of STCs in the 1980s

The North Korean regime launched the present day form of STCs in the early 1980s. Newly created STCs were employed as a mechanism for raising funds for the 13th World Festival of Youth and Students. South Korea was slated to host the 1988 Summer Olympics, and Pyongyang hoped to avoid being overshadowed by its neighbor and rival to the south. North Korea convened over 22,000 people from 177 countries for the 13th World Festival of Youth and Students, which was held in Pyongyang in 1989. The games caused the DPRK to incur a massive debt, but the development of the STC concept had shown promise and would become a model for subsequent iterations in the late 1990s.⁴⁵ A key architect of what became the current STC structure was reportedly Jang Song-taek, the uncle of North Korean leader Kim Jong-un.⁴⁶

After the Fall of the Soviet Union

During the Cold War, the DPRK depended on state-to-state trade with its Communist allies in Moscow and Eastern Europe, as well as with countries in the Middle East. North Korean officials would procure goods from mostly state entities and transport the items on North Korean freighters or Soviet-era transport planes chartered in Ukraine or the Russian Far East. Illicit goods were relabeled on the shipping manifest, and the North would oversee their clandestine shipment to the DPRK. North Korean procurement was less sophisticated then. Acquisitions

⁴⁵ For a collection of archival documents illustrating North Korean prestige concerns stemming from the 1988 Seoul Olympics, see Wilson Center Digital Archive, "1988 Seoul Olympic Games," <http://digitalarchive.wilsoncenter.org/collection/70/1988-seoul-olympic-games/>; Park, John. "North Korea, Inc.," *U.S. Institute of Peace Working Paper*, April 2009, 6-7.

⁴⁶ July 2014 research interviews with defectors in Seoul.

were limited by physical constraints, but defectors report that these evasion techniques were reliable and effective.⁴⁷

With the collapse of the Soviet Union and political transitions in Eastern Europe, Pyongyang had to look elsewhere for trading partners.⁴⁸ With the STC architecture already in place from the 13th World Festival of Youth and Students, North Korea began to establish a more robust system of STCs. The STCs' focus was increasingly on China, and in particular, on the border between to the two neighbors. STCs looking for either legal or illicit goods sought parts and materials from cross-border trade with private Chinese companies—companies often run by Chinese nationals of Korean ethnicity. Agents working for the North's STCs would make frequent but brief trips to China to arrange the transactions.

One of the fundamental but more ignored aspects of the DPRK's procurement system is that it is *not* a fully dedicated proliferation network. Instead, pieces of Pyongyang's procurement network combine licit and illicit procurement. It expanded its commercial activities in a manner that allows it to move banned components and materials within this larger flow of legitimate business.

The DPRK paid for its purchases with revenues from various illegal enterprises, including sales of recreational drugs, counterfeit pharmaceutical drugs, cigarettes, counterfeit bills, and arms (e.g., ballistic missiles). The DPRK also used monies earned by North Korean laborers working abroad as well as trade in commodities such as fish and coal.⁴⁹

⁴⁷ Park, John. "The Key to the North Korean Targeted Sanctions Puzzle," *The Washington Quarterly* 3, no. 37 (November 1, 2014): 199-214; July 2014 research interviews with defectors in Seoul.

⁴⁸ While the focus of this study is rightly China, several countries and their nationals have played critical roles in North Korean weapons programs, including Russians (missile program) and Pakistanis (nuclear program.) For example on Russia, see "Former Soviet Researches Aid N. Korea's Missile Development." *KBS World Radio*, June 28, 2016. http://world.kbs.co.kr/english/news/news_Po_detail.htm?lang=e&id=Po&No=120002¤t_page.

⁴⁹ Greitens, Sheena Chestnut. "Illicit: North Korea's Evolving Operations to Earn Hard Currency." Washington, DC: Committee for Human Rights in North Korea, 2014. <https://www.hrnk.org/uploads/pdfs/SCG-FINAL-FINAL.pdf>; Noland, Marcus. "How North Korea Funds its Regime." Testimony before the Subcommittee on Federal Financial Management, Government Information, and International Security Committee on Homeland Security and Governmental Affairs, United States Senate, April 25, 2006. <https://piie.com/commentary/testimonies/how-north-korea-funds-its-regime>.

North Korean Procurement Practices After 2000

After 2000, North Korea, Inc. began a new phase, one that resulted in a deeper penetration of both China and regional economic hubs.⁵⁰ This period is defined by three major events: the sanctioning of Banco Delta Asia (BDA) in Macau, the visit to North Korea by China's Premier Wen Jiabao in 2009, the death of Kim Jong-il in 2011 and subsequent succession of Kim Jong-un. The first event demonstrated to the DPRK that it needed to develop new, less vulnerable forms of finance. The second had the effect of opening the door to new Chinese partners, including local Chinese banks. The third event is more difficult to assess, but Kim Jong-un's accession has been accompanied by an emphasis on both economic growth and illicit military technologies, making STCs all the more important.

In the mid-2000s, the U.S. Treasury Department designated North Korean accounts in BDA as money-laundering concerns. This, in turn, led the Macanese monetary authority to freeze these accounts.⁵¹ For almost a year, North Korea was unable to access its funds, which totaled approximately US\$24 million. Washington and Pyongyang reached a political agreement to resume the stalemated Six-Party Talks in return for unfreezing these accounts, but even with an agreement in hand, the U.S. had difficulty arranging the release of the frozen funds to North Korea. Eventually it facilitated a wire transfer of the balances from Macau to a private bank in Moscow via the U.S. Federal Reserve System. The North Koreans promptly withdrew the funds from this Russian bank.

The BDA episode demonstrated to the North Koreans that their illegal activities were vulnerable to U.S. sanctions against international banks, especially those using dollars. The DPRK would have to find new partners and new instruments of finance that would allow them to operate outside the reach of the U.S. Treasury Department. Serendipitously, for the DPRK, Premier Wen's subsequent visit to North Korea precipitated a chain of events that provided Pyongyang with access to the partners and instruments it sought via the Chinese market.

In October 2009, Wen led a senior Communist Party of China (CPC) delegation to Pyongyang. While ostensibly celebrating the sixtieth anniversary of the establishment of Sino-DPRK diplomatic relations, the premier brought an entourage including the chief planners and implementers of Chinese internal economic development. Wen signed bilateral agreements with the Workers' Party of Korea (WPK) in the areas of economic development, education, and tourism.⁵² Initially dismissed by analysts as propaganda, these agreements effectively facilitated the creation of the bilateral mechanism through which North Korean STCs were able to expand

⁵⁰ This study demarcates DPRK procurement before and after 2000, because the 2000s represent the period where the DPRK begins to deploy STCs more proactively in China. The second half of the 1990s was defined by the famine and efforts at stabilization. Beginning in the 2000s, North Korea starts to more affirmatively pursue foreign commerce as well as the procurement of nuclear and missile related items.

⁵¹ July 2015 research interviews with private sector firms in Hong Kong.

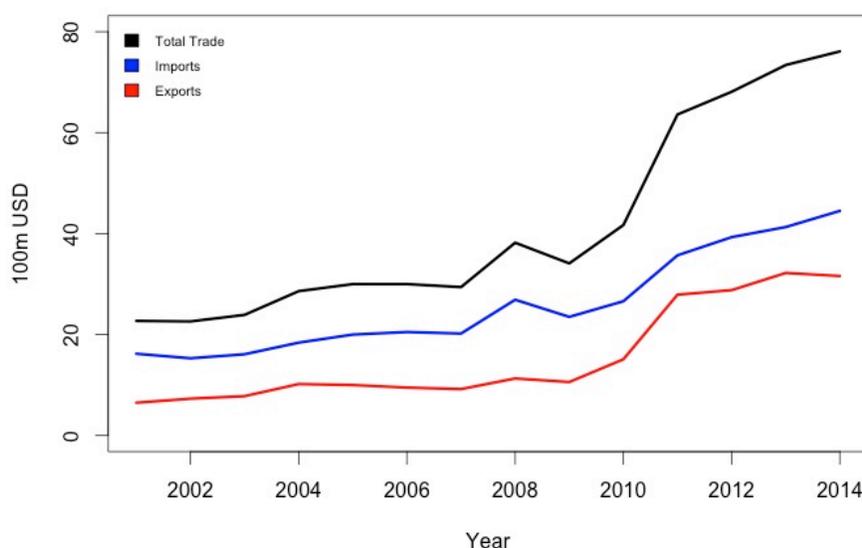
⁵² Park, John. "Assessing the Role of Security Assurances in Dealing with North Korea," Chap. 9 in *Security Assurances and Nuclear Nonproliferation* (Stanford, CA: Stanford University Press, August 2012).

their export of coal to China and enhance their procurement capabilities within the Chinese national economy.⁵³

Moreover, the agreements signaled to *private* Chinese firms that it was permissible to do business with DPRK entities. In particular, it made it possible for the North to find Chinese firms that could help with the procurement of dual use and other high value items.

The timing of Wen’s October visit was critical, as it came after the DPRK’s second nuclear test in May of 2009. Following the test, both the U.S. and the United Nations imposed new sanctions on the North, including financial sanctions. This combination of new sanctions and new opportunities to contract with private Chinese partners had powerful interactive effects.

Chart 1. North Korea Trade, 2001-2014⁵⁴



Finally, no account of this time period would be complete without reference to Kim Jong-un’s rise to power. It is still early in the young Kim’s tenure to assess the full ramifications of this political transition, but already there have been changes, most notably the new *byungjin* policy, which seeks to simultaneously increase North Korea’s nuclear weapons arsenal and develop its

⁵³ August 2014 research interviews with defectors in Seoul.

⁵⁴ Annual reports on North Korean economic performance released by the Bank of Korea, and available at “DPRK Economic Statistics.” *NK Econ Watch*. <http://www.nkeconwatch.com/north-korea-statistical-sources/>. This chart reports on all DPRK except for that between North Korea and South Korea, which is reported separately. Data for China-DPRK trade from the Korea Trade-Investment Promotion Agency, Korea International Trade Association, and the ROK Ministry of Unification document the same pattern. For a useful source of public data on the DPRK economy, see: Melvin, Curtis. Ed., *North Korea Economy Watch*, <http://www.nkeconwatch.com>

national economy.⁵⁵ Certainly, for North Korean STC managers pursuing illicit weapons technology, the message is full speed ahead.⁵⁶

North Korea's Adaptations

The combination of greater access to the Chinese market, new sanctions, and later, an increased demand for economic growth and illicit technologies under Kim Jong-un precipitated a dramatic shift in DPRK procurement. In particular, five changes to the STC system are noteworthy.

1) Employment of more capable Chinese middlemen

With improved bilateral economic relations following Wen's visit, the DPRK regime expanded its use of private Chinese middlemen. It also contracted with more capable private firms than it had in the past. New sanctions raised the risk of doing business with North Korea, as the U.S. and others had hoped, but Pyongyang responded by paying higher fees to compensate for the increased risk. Higher fees, in turn, drew larger and more sophisticated Chinese partners.

Essentially, Pyongyang is able to rent the procurement capabilities of Chinese firms. New, larger, and more sophisticated brokers provided Pyongyang with a number of additional capabilities. These included:

Enhanced access to local Chinese suppliers and foreign firms located in China

North Korean STCs operating in China often use third parties to obtain goods that they otherwise could not acquire. The STCs, acting in their own name or through a shell company, contracted with private firms in China. The Chinese brokers, in turn, signed contracts with Chinese suppliers. The suppliers assume they are doing business with a Chinese firm, not a North Korean one. Once the brokers acquired the targeted goods from the unsuspecting supplier, they were transferred to the intended endpoint, the DPRK.

A similar arrangement is used to place orders with Western companies that have established their own production platforms in China. Tapping into this segment of the Chinese economy has proven to be particularly valuable for Pyongyang. Foreign firms in China constitute a gateway to the international market but with significantly lower exposure to risk, compared with directly trying to procure goods from Western companies in their home markets.⁵⁷

More precise procurement

Buying the services of larger more sophisticated Chinese partners allowed the DPRK to expand the number and kinds of firms it could target for procurement. It enabled North Korea to search for specialty, hard-to-find goods that its less capable partners (e.g., along the border) cannot acquire. In short, Pyongyang achieved greater precision in its procurement.

⁵⁵ Snyder, Scott A. "The Motivations Behind North Korea's Pursuit of Simultaneous Economic and Nuclear Development," CFR, November 20, 2013, <http://blogs.cfr.org/asia/2013/11/20/the-motivations-behind-north-koreas-pursuit-of-simultaneous-economic-and-nuclear-development/>

⁵⁶ August 2014 research interviews with defectors in Seoul.

⁵⁷ Chinese middlemen would also place orders to foreign firms' subsidiaries in other parts of Asia, such as Japan. August 2014 research interviews with defectors in Seoul.

Box 2. DPRK Adaptations

- 1) Employment of more capable Chinese middlemen
Enhanced access to Chinese suppliers and foreign firms located in China
More precise procurement
Outsourcing of logistics
Bulk payments and broker financing
- 2) Embeddedness in China
Building procurement relationships and developing tacit knowledge
Chinese banks and on-shore accounts
- 3) Use of Hong Kong
- 4) Use of commercial hubs in Southeast Asia
- 5) Increased use of embassies and diplomatic personnel for procurement

Specialized products range from dual-use industrial equipment manufactured on a foreign company's China-based assembly line to luxury items imported directly from their country of origin into China. The combination of 1) readily accessible specialized products and 2) specialized services for hire has substantially bolstered the DPRK's procurement capabilities.⁵⁸

Outsourcing of logistics

For an extra fee, Chinese middlemen often manage procurement logistics for their North Korean clients, including receipt from a supplier and shipment to the DPRK. This makes for a smoother procurement pathway and also diminishes the risk associated with illicit acquisition.⁵⁹ Gone are the days of having to rely exclusively on North Korean ships secretly ferrying parts from a port in the Middle East. Chinese partners instead hide North Korea's relatively small consignments amid the massive volume of regular commercial activity within China's domestic market. Once in this flow, defectors noted that the consignment would essentially be "hiding in the open."

The DPRK's Chinese partners target sea and land routes that are congested, and where rates of inspection are low. Although an option, commercial aviation is rarely used largely due to its high cost. The main advantage of using air is expedited delivery and the infrequent inspection of checked packages at airports. In Beijing Capital International Airport, it is common to see large packages wrapped in cardboard but rarely inspected by airline representatives before they are moved along and stored in the airplane's cargo compartment. From there, it would be a

⁵⁸ July 2014 research interviews with defectors in Seoul.

⁵⁹ Aaron Arnold suggests that a comparison might be made to "the evolution of narco-trafficking post-Medellin cartels. In order to minimize risk, the Columbian cartels outsourced logistics to Mexican drug trafficking orgs, like the Zetas and Sinaloa cartels." Arnold, Aaron. Communication with the authors, July 2016.

direct flight to Pyongyang Sunan International Airport. The same is true for direct flights originating from Shanghai Pudong International Airport.⁶⁰

For an additional fee, a Chinese broker will not only arrange for the acquisition and transport of illicit goods but will also cover up the illicit transfer. One defector explained how this operated in the case of advanced medical imaging equipment exported by a Japan-based manufacturer. The Chinese broker not only arranged for the export of the item but also engaged in an elaborate deception to hide the identity of the end user (North Korea). When the Japanese supplier sought to confirm the export's end use, the broker arranged for hospital representatives to create a false "transfer trail," so that the inspector from the Japanese manufacturer was endlessly visiting Chinese hospitals in search of the equipment. By the time the company inspector returned to the Chinese hospital listed in the original purchase documents, the medical diagnostic equipment had long since been shipped to North Korea.⁶¹

Bulk payments and broker financing

Doing business with larger PRC firms permits the DPRK to rely on bulk payments and broker financing. This reduces the need for STC cash up front, and reduces the risk associated with illicit transactions. The DPRK can now structure contracts that allow North Korean representatives to pay for the bulk of the transaction—approximately 80-90%—upon final delivery to North Korea. In the interim, the PRC firm directly pays for the procured item. This new practice also has the effect of weeding out smaller and less capable Chinese middlemen.⁶²

Defectors stress the importance of this arrangement for STC managers. In the eyes of the North Korean leadership, an STC manager is responsible for a missing delivery. A failed deal is detrimental to a manager's career.

2) Embeddedness in China

With new opportunities in China, more North Korean STCs began to relocate their operations to the mainland. The move to embed inside the Chinese market signified a shift from what had previously been primarily trans-border procurement facilitated by brief business trips. As a consequence, the STCs are able to 1) build deep relationships and develop tacit knowledge, and 2) take advantage of the Chinese banking system.

⁶⁰ August 2014 research interviews with defectors in Seoul. STC managers report that civil aviation flights are particularly well suited to the transport of physically small but critical goods such as electronic components. They suggest that, contrary to expectations, air transport is relatively easy—a claim that appears to be borne out by the near absence of reported interdictions involving Chinese civil air transport.

⁶¹ July 2014 research interviews with defectors in Seoul.

⁶² Lesser middlemen would lack the capital to self-fund the purchase of a shipment. That type of market actor would likely lead a hand-to-mouth existence, where almost all of the revenue it earned on a deal would immediately go to settling expenses. The margins would be so small that this type of broker would be focused on daily survival and thus represent a more risky partner. July 2014 research interviews with defectors in Seoul.

Building procurement relationships and developing tacit knowledge

Rather than making quick trips or a short-term posting abroad, STC managers now reside in Chinese commercial hubs with their families.⁶³ Their children attend local international schools. On the mainland, North Korean managers are viewed and treated much like other foreign businessmen making deals.

This new arrangement—i.e., normalcy—enables these managers to sink roots in local communities and gain access to local resources. The tacit knowledge (i.e., informal knowledge generated from direct experience) and relationship building acquired by working in China enables North Korean managers to more effectively navigate the Chinese economy and the world of private Chinese middlemen. North Korean STCs have even bought into Chinese firms and then with ownership rights, used the Chinese firms to carry out wire transfers and conduct other activities outside the sanctions regime.⁶⁴

Chinese banks and on-shore accounts

Moving more of its procurement network to the mainland also allows the DPRK to take advantage of the Chinese banking system. Pyongyang set up on-shore accounts in China with the funds generated from North Korea's coal sales to Chinese customers. DPRK officials then drew on these accounts for funds to purchase technology, luxury goods, and other banned items. Having access to a Chinese bank account allowed DPRK managers to transfer money within the Chinese banking system, using private Chinese middlemen. When a private Chinese middleman wired funds on behalf of its North Korean STC client, the documentation recorded it as a Chinese company making the transfer. As a result, it was difficult for the Chinese government to detect illicit activity.⁶⁵

Having access to Chinese bank accounts also helped the DPRK avoid using U.S. dollars. International wire transfers in dollars typically pass through American banks, where illicit transactions can be detected and funds seized. North Korean STCs benefited enormously from Chinese bank accounts that permitted them to avoid these risks. Defectors pointed out that these onshore accounts constituted the foundation upon which the North Korean regime had been carefully building a foothold inside of China's domestic market.⁶⁶ This trend continues today. Indeed, the use of onshore banking accounts set up by Chinese brokers may very well be the main counter-measure North Korean STC managers employ against the new banking and financial sanctions.

3) Use of Hong Kong

As a Special Administrative Region of China, Hong Kong operates as an open commercial and financial hub. The existence of deep, well-developed, financial markets in Hong Kong help North Korean STCs monetize their business risks. By paying higher fees to reflect higher risk in a post-nuclear test, post-financial sanctions environment, North Korean STCs have been able to

⁶³ Defectors who experienced this expat lifestyle explained how they sent their children to local international schools. July 2014 research interviews with defectors in Seoul.

⁶⁴ August 2014 research interviews with defectors in Seoul.

⁶⁵ July 2014 research interviews with defectors in Seoul.

⁶⁶ August 2014 research interviews with defectors in Seoul.

take advantage of Hong Kong's central role in trade and finance, including the privileged relationship Hong Kong-based entities enjoy with their mainland counterparts. The North expanded STC branches in Hong Kong, which made it even easier to use Chinese middlemen on the mainland to execute deals and transport procured goods.

4) Use of commercial hubs in Southeast Asia

North Korean STCs frequently use their bases of operations in mainland China and Hong Kong to develop relationships with individuals and firms in Southeast Asian commercial hubs and to establish bank accounts throughout the region.

STCs often reach out to “Hwa-gyos,” the Korean term for ethnically Han Chinese North Korean citizens or their descendants who live abroad. By leveraging North Korean cultural ties, the DPRK can take advantage of the fact that many Hwa-gyos are wealthy businessmen. Thus, a combination of cultural affinity and monetized risk is often sufficient to persuade these unique businessmen to provide loans or front-end financing for North Korean STCs.⁶⁷

North Korea's bank accounts in Southeast Asia are useful for money laundering and local procurement. An STC manager provides cash to a Chinese middleman who, in turn, wires the sum from point A in northern China to point B in southern China. From there, the broker arranges for the funds to be wired to a financial institution in a Southeast Asian country. Once in country, the funds can be used for a host of purposes, from paying a local firm to ship a consignment to processing payment for a transit fee.⁶⁸

A court case in Singapore in August 2015 documents how North Korean STCs pay local firms to conduct activities designed to evade sanctions—particularly with respect to arranging wire transfers for payments to foreign counterparties.⁶⁹

5) Increased use of embassies and diplomatic personnel for procurement

North Korea abuses its diplomatic privileges to support its procurement efforts abroad. North Korea has traditional diplomatic relations with most countries, particularly in Asia. It has embassies and diplomatic representation in these countries, where it is accorded normal consular privileges. These privileges include the use of diplomatic “pouches” which can travel through countries and across borders without the risk of search. Diplomatic couriers carrying these pouches enjoy immunity from arrest.⁷⁰ The DPRK has taken advantage of this system and used

⁶⁷ Park, John. “The Key to the North Korean Targeted Sanctions Puzzle.”

⁶⁸ July 2015 research interviews with private sector firms in Singapore.

⁶⁹ An August 2015 court case in Singapore illustrates how this sort of arrangement can work: on July 8, 2013, Chinpo Shipping Company of Singapore reportedly transferred US\$72,000 to Panama shipping agent C B Fenton and Co. for a vessel transporting weapons from Cuba to North Korea. The prosecution alleged that Chinpo agreed to make the payment on behalf of North Korean entity Ocean Maritime Management for *Chong Chon Gang*, one of its vessels, to travel through the Panama Canal. *Singapore Public Prosecutor v. Chinpo Shipping Company (Private) Limited*, 2016. Case No. DSC 900002-03 of 2014.

⁷⁰ Over time the concept of a diplomatic “pouch” has evolved to include larger cartons, even shipping containers.

diplomatic personnel both as agents engaged in illicit procurement and as couriers who transport unreported cash and other illicit items. If caught, they can be expelled, however.

The improper use of embassies was cited in 2013 in UNSCR 2094, and reaffirmed in UNSCR 2270 (2016), which expressed “continued concern that the DPRK is abusing the privileges and immunities accorded under the Vienna Conventions on Diplomatic and Consular Relations.”⁷¹

The use of embassies and diplomatic personnel provide the DPRK with several advantages from a procurement perspective. Defectors note that the North Korean regime co-locates shell companies with its overseas embassies in countries that are particularly active commercially. This permits managers to operate their firms with a lower level of scrutiny from local law enforcement.⁷²

In addition, credentialing an STC official as a diplomat enables that individual to reside in the designated country for a longer period. This arrangement provides an opportunity for an STC manager to further develop working relationships with middlemen and build up commercial expertise related to the local market. As a recent defector pointed out, “in the end, all procurement is local.”⁷³

The Evolving DPRK Revenue Stream

Just as the North’s procurement modalities have evolved over time, so has the mix of revenue sources that it uses to finance purchases of licit and illicit items. Money made from the sale of illegal drugs, cigarettes, pharmaceuticals, weapons systems and counterfeit bills have declined in relative terms over time.⁷⁴ A variety of factors explain this outcome with particular causes depending on the type of trade involved. In some cases, sanctions have created new barriers; in others, the market for those items has changed as additional suppliers have entered the global marketplace. In some cases, the emerging competitors have been non-state actors such as criminal enterprises (e.g., counterfeiting rings in Thailand).⁷⁵

As these illicit sources of revenue have declined, the DPRK’s export of coal and human labor has increased. At its peak in the early 2010s, some 90% of the North’s exports were sold to China. For years, China famously bought up commodities to feed its growing economy. In 2015, North Korea was China’s third largest provider of coal behind Australia and Indonesia.⁷⁶

⁷¹ UN Security Council Resolutions 2094 and 2270 are available at: <http://www.securitycouncilreport.org/un-documents/dprk-north-korea/>.

⁷² August 2014 research interviews with defectors in Seoul.

⁷³ August 2014 research interviews with defectors in Seoul.

⁷⁴ There is some evidence that North Korean counterfeiting may be making a come back. See footnote 118.

⁷⁵ Greitens, Sheena Chestnut. “Illicit: North Korea’s Evolving Operations to Earn Hard Currency;” Noland, Marcus. “How North Korea Funds its Regime.”

⁷⁶ July 2015 research interviews with South Korean government officials in Seoul.

During the second half of the 2000s, the DPRK regime earned record sums as the international commodity price of coal almost tripled compared to the first half of the 2000s.⁷⁷ But during the 1st quarter of 2015, South Korean diplomats posted in China reported a decline in North Korea's coal sales and revenue with China. The first factor accounting for the decline in the coal trade was the PRC government's newly instituted environmental standards. DPRK coal was sent back by China because of its high sulfur content. Second, a decline in the economic value of the trade reflected a drop in the international price of coal. The monetary value of the North's coal exports declined, as prices for commodities declined. The drop in commodity prices represented the biggest shock yet to North Korea's once highly lucrative coal trade.⁷⁸

North Korea has also raised revenue by sending laborers to work abroad, especially in Chinese factories, and Russia's timber and construction industries.⁷⁹ Coordinating closely with Chinese partners, select North Korean STCs have been steadily expanding the number of North Korean workers in China. The vast majority of the wages they earn from their Chinese employers are sent back to the North Korean leadership's affiliated organizations in bulk cash shipments that are physically transported back to Pyongyang. This scheme enables the regime to evade financial sanctions. Defectors report that the North Korean workers only receive about 10 percent of their wages.⁸⁰

Jang Song-taek and North Korea's Commercial Relations with China

Stepping back, one cannot describe the North's commercial relationship with China without reference to Jang Song-taek, Kim Jong-un's uncle by marriage. Following the death of Kim Jong-il until his surprise execution in December 2013, Jang was arguably the most senior and powerful official in Pyongyang other than Kim Jong-un. Jang was the DPRK official with the closest ties to Beijing, having personally met with Premier Wen, President Hu Jintao, and an array of senior Chinese officials. In particular, Jang oversaw economic cooperation with the PRC and used that position to build a large patronage network whose main purpose was trade and procurement.

⁷⁷ August 2014 research interviews with defectors in Seoul.

⁷⁸ July 2015 research interviews with South Korean government think tank analysts in Seoul; Solomons, Ilan. "New Sanctions Could Cripple Reclusive North Korea's Mining Sector." *Mining Weekly*, May 27, 2016. http://www.miningweekly.com/article/new-sanctions-could-cripple-reclusive-north-koreas-mining-sector-2016-05-27/rep_id:3650. In the early 2010s, Pyongyang's total quantity of coal exports rebounded and actually increased, but the increased volume did not make up for the declining price.

⁷⁹ Snyder, Scott A. "North Korea's Latest Export: Labor." *Forbes*, May 22, 2015. <http://www.forbes.com/sites/scottasnyder/2015/05/22/north-koreas-latest-export-labor/#7ef0e18d4e33>.

⁸⁰ July 2014 research interviews with defectors in Seoul.

At the time of his death, analysts tried to make sense of the dramatic turn of events. Some wondered whether the execution signaled a potential change in relations with China, and in particular, a turn away from economic cooperation and development with Beijing.⁸¹

In the end, Jang's execution did not portend a shift in economic relations with China. While some of the senior members of Jang's network were recalled or some punished, it did not result in a wholesale closing or restructuring of Jang's institutional apparatus. Some of his top officials were retained as well as the larger infrastructure. Kim apparently preferred to take control of Jang's network rather than rooting it out. Many officials remained in China to do Pyongyang's bidding. Indeed, in some cases, the post-Jang regime generated new opportunities for those working in the North's STCs, as it afforded the chance to change jobs and join a different trading company.⁸²

The Evolution of DPRK Trading Practices over Time

As one charts North Korean procurement from the 1990s into the 2000s, following the 2009 DPRK-PRC economic agreements, and then again after the rise and fall of Jang Song-taek, there are both continuities and changes. Among the consistent features of North Korean trade and procurement are the use of shell companies, the use of embassies, the export of laborers, and the centrality of the Chinese market—both as a source of revenue and a vehicle for procurement.

The evolution in DPRK trade and procurement can be seen in Pyongyang's choice of partners, pathways, and practices.

At one level, the centrality of China as North Korea's main trading partner remains constant. Within China, however, the past decade has witnessed significant changes in the North's selection of commercial partners. Over time, Pyongyang has increasingly turned to *private* Chinese firms rather than party bureaucrats and state-owned entities, and more crucially, to private Chinese *middlemen*. Rather than providing goods themselves, these middlemen facilitate the procurement of materials and technology by acting as agents for the North, thus masking Pyongyang's role. In addition, the character of the brokers has evolved, as Pyongyang has attracted *larger, wealthier, and more sophisticated* Chinese partners.

The North's ability to attract more capable Chinese firms has allowed it to adopt new practices. It has been able to target the procurement of whole systems rather than parts and to more effectively procure goods from foreign firms operating in China. The use of more sophisticated Chinese partners has also allowed changes in the contracts and financial structure of procurement deals, for example, by having Chinese firms cover the upfront costs of procurement in many instances.

Finally, the procurement pathways have changed. Over time, the DPRK has moved from a reliance on local, cross-border procurement towards operations deep inside the mainland. North

⁸¹ Kuhn, Anthony. "An Execution In North Korea Has A Chilling Effect In China." *NPR*, January 10, 2014. <http://www.npr.org/sections/parallels/2014/01/10/261412968/an-execution-in-north-korea-has-a-chilling-effect-in-china>

⁸² August 2014 research interviews with defectors in Seoul.

Korean STCs have become embedded in China, where they are part of the normal Chinese business environment. This shift to on-site procurement has been supplemented by efforts to expand regional procurement nodes, in Hong Kong and throughout Southeast Asia. The use of DPRK couriers and diplomats for illicit commercial purposes illustrates the North's efforts to diversify its procurement pathways.

III. The Unintended Consequences of Sanctions on North Korea

Conceptualizing Unintended Consequences

Debates over sanctions in general, and over North Korea sanctions in particular, tend to focus on whether sanctions are effective or ineffective. Less discussed are the potential unintended consequences of sanctions. In principle, these unintended consequences might affect 1) North Korea, 2) the governments that impose sanctions on North Korea, and 3) third parties.

It is important to distinguish the popular notion of unintended consequences from the way the term is used here. In common parlance, unintended consequences are almost always associated with negative outcomes. In the typical narrative, a government enacts a policy with good intentions, but in practice, other inadvertent effects overwhelm the good outcomes leaving the situation worse than before the policy was adopted. In contemporary policy debates, reference to unintended consequences can be a “gotcha moment,” where the identification of an unintended consequence is commonly used to delegitimize a policy.

The concept of unintended consequences presented here is more descriptive and neutral than normative or evaluative. Most, if not all, policy actions generate unintended consequences. Moreover, unintended consequences include a range of potential outcomes. These vary across two dimensions: from positive to negative and from significant to insignificant. And regardless of whether a given unintended consequence is positive or negative, significant or insignificant, unintended consequences can change over time. Thus, unintended consequences are seen here as dynamic: an effect that is negative in one phase of policy implementation could turn out to be positive at a subsequent point or vice versa.

Table 1. Types of Unintended Consequences

	Positive	Negative
Significant	Maximize	Minimize
Insignificant	Monitor	Monitor

Medicines provide a useful analogy here. A drug taken to combat a bacterial infection might also improve the complexion of one's skin—a positive but not particularly consequential unintended effect. Other medications can heighten the risk of stroke: a negative and more consequential event. Some medications are effective when first taken but wane in efficacy over time, even as the negative side effects increase over the same period. More broadly, an antibiotic might cure an infection for an individual patient, but the widespread use of this effective treatment might, in time, produce resistant strains of bacteria that have the effect of leaving a population more vulnerable to disease.

In general, one should expect and plan for unintended consequences. Moreover, this planning process should anticipate the likelihood that unintended consequences evolve, especially under conditions where a policy takes the form of an iterative game of actions and reactions over an extended time horizon.

The Unintended Consequences of Sanctions on North Korea

Sanctions on North Korea are precisely the kind of policy arena where one might expect an evolving set of unintended consequences: sanctions on the DPRK have been imposed for decades. As previously noted, they have resulted in counter-moves by Pyongyang, and in some cases, responses to those counter-moves by the international community. These iterative actions and reactions over an extended period of time have contributed to the evolution of the North Korean sanctions regime, North Korea's responses to it, and the unintended consequences that follow.

The task here is to identify these possible unintended consequences—positive and negative, significant and insignificant—and to specify how they may have changed over time.

Negative Unintended Consequences of Sanctions on North Korea

1) Strengthens North Korean capabilities (“sanctions conundrum”)

A key, counter-intuitive finding of this study is that sanctions on the DPRK had the net effect of strengthening Pyongyang's procurement capabilities, what might be called the “sanctions conundrum.” U.S. and international sanctions did have the intended effect of increasing the risk of doing business with North Korea, Inc., but Pyongyang responded by monetizing the risk and offering to pay higher commission fees to middlemen. These higher fees, in turn, drew larger and more sophisticated private Chinese brokers. With more capable partners, the North's procurement progressed from predominantly border trade in parts to the acquisition of systems and a network of Chinese facilitators that stretched from the mainland to Hong Kong and to commercial hubs throughout Southeast Asia.

Having identified the “sanctions conundrum,” it is worth stepping back and putting it in a theoretical context. First, it is unlikely that the relationship among risk, higher fees, and rates of participation by Chinese brokers is continuous and absolute. Presumably, there are extremely high levels of risk that even very high fees cannot overcome. Imagine, for example, that Chinese middlemen faced the death penalty for working with North Korean clients, and that the brokers believe that the risk of getting caught is substantial.⁸³ At the other end of the curve, small increases in fees for small increases in risk might not provide sufficient incentives to attract the larger, more capable Chinese firms. The charts below illustrate these basic concepts. Chart A represents a simple, continuous model. Chart B posits a more realistic, but unconfirmed model.

⁸³ Bryan Early points out that Malaysia *did* institute the death penalty for violations of strategic trade laws. To be clear, our reference is intended as an illustration, not a policy recommendation. Early, Bryan. Communication with the authors, July 2016.

Chart 2. Continuous Relationship Among Cost, Risk, and Broker Participation

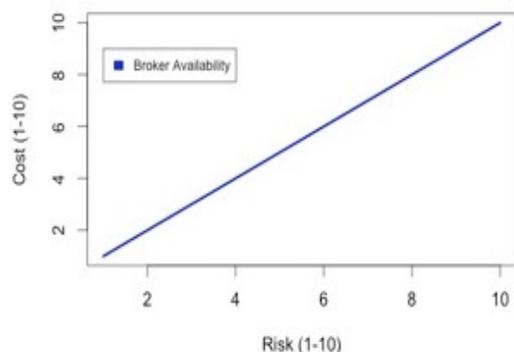
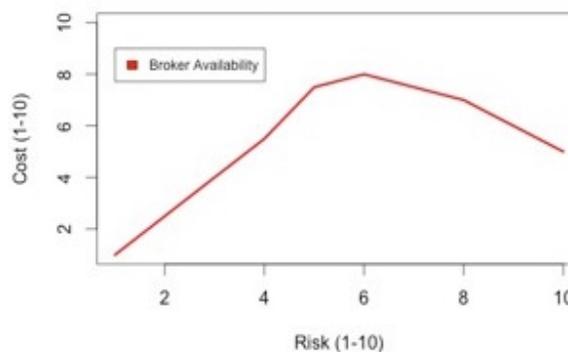


Chart 3. Notional Estimated Relationship Among Cost, Risk, and Broker Participation



The research presented in this study—using interviews with North Korean defectors—offers a snapshot of this phenomenon, that is, it tells us what STC managers saw at a particular moment in time. Ideally, one would want to have data from a series of interviews over time. A time series would enable analysts to estimate where current sanctions are on the risk/fees/brokers curve. If, for example, policymakers were confident that the DPRK could no longer compensate for sanctions by monetizing the risk (the right hand side of the curve), it would suggest one set of options. If it appeared that the DPRK could still overcome sanctions by paying higher fees, and that as a consequence they could actually augment their procurement capabilities, it would suggest caution and a different set of policy instruments.

In the absence of additional data, this analysis will assume that the “sanctions conundrum” is still in play, namely that it has not yet reached a point where increased fees do not attract Chinese partners.

While theoretical, this discussion is likely to be relevant in the very near term. As a result of recent UN, U.S., Russian, and European efforts to close North Korean correspondent banking accounts, it would seem likely that the DPRK would respond by increasing its use of brokers to an even greater level. For example, Chinese and other middlemen could be asked to establish new bank accounts or use their existing ones to facilitate DPRK procurement activity without North Korean fingerprints.

It remains to be seen whether this effect persists at higher levels of sanctions and over time, but a sanctions regime that actually improved the North’s procurement capabilities is perhaps the quintessential unintended consequence.

2) Incentivizes collaboration with illicit networks and states of concern

The old adage suggests that my enemy’s enemy is my friend. In the case of North Korea, a sanctions regime could, in theory, incentivize Pyongyang to collaborate with other entities that participate in illicit trade or are themselves the target of sanctions. The former might include

criminal and other non-state actors. In the latter category would be other sanctioned states such as Syria, Iran, Myanmar, Russia, and the like.⁸⁴

There is some evidence of North Korean cooperation with other sanctioned states. The North surreptitiously began construction of a nuclear reactor in Syria (later bombed by Israel). In addition, there were allegations of cooperation between Myanmar and the DPRK, though its extent remains unclear. And it may be that this cooperation ended following Myanmar's agreement with the United States and the international community to begin a transition to democracy.⁸⁵ In the 1990s in particular, North Korea reportedly sold small arms and missiles to customers in the Middle East. Technology sharing between the North and Iran is well documented in the area of missiles, though allegations of cooperation on nuclear technology have never been substantiated. The missile exchanges occurred largely in the past, and the recent Iran nuclear agreement may render such activity less likely in the future.⁸⁶

There is evidence of North Korean collaboration with criminal and other entities, particularly in the area of drug trafficking.⁸⁷ Anecdotal evidence points to collaboration with Russian criminal organizations, for example.

Of course, the North may have had other motivations for its cooperation with sanctioned entities even absent sanctions. And in any case, it appears that the effects of such cooperation have not substantially altered the capabilities of any of the partners involved. It may be that even countries like the DPRK are reluctant to cooperate with organizations that are seen as untrustworthy or unaccountable.

⁸⁴ U.S. sanctions have been lifted on Myanmar. U.S. and international sanctions have been partially lifted on Iran. Before these changes there was speculation about North Korean collaboration with both states. See Boye, Catherine, Melissa Hanham and Robert Shaw. "North Korea and Myanmar: A Match for Nuclear Proliferation?" *Bulletin of the Atomic Scientists*. September 27, 2010. <http://thebulletin.org/north-korea-and-myanmar-match-nuclear-proliferation>; and Taylor, Guy. "U.S. Urged to Block any North Korean Support for Iranian Nukes." *Washington Times*. January 28, 2016. <http://www.washingtontimes.com/news/2016/jan/28/n-korea-iran-nuclear-ties-probably-deep-report/?page=all>.

⁸⁵ Albright, David, Paul Brannan, Robert Kelley, and Andrea Scheel Stricker, "Burma: a Nuclear Wannabe, Suspicious Links to North Korea and High-Tech Procurements to Enigmatic Facilities," ISIS, January 28, 2010, http://isis-online.org/uploads/isis-reports/documents/BurmaReport_28January2010.pdf.

⁸⁶ It is worth noting that despite numerous opportunities to do so, "the Director of National Intelligence has never claimed Iranian-DPRK nuclear coordination even as the DNI has pointed to missile cooperation between the two countries and testified as to Syrian-DPRK nuclear cooperation." See Walsh, James. "The Iran-North Korea Strategic Alliance." Testimony before the House Committee on Foreign Affairs, July 28, 2015. <http://web.mit.edu/ssp/people/walsh/Walsh%20HFAC%20Testimony%207-28-2015.pdf>.

⁸⁷ Arnold Aaron. Communication with the authors, June 2016; Greitens, Sheena Chestnut. "Illicit: North Korea's Evolving Operations to Earn Hard Currency."

3) Hinders positive forms of engagement

Throughout the Cold War competition between the United States and the Soviet Union, there were a small number of nuclear and other experts from both countries that met in order to keep lines of communication open, and according to some observers, to help the Soviets understand the full ramifications of what it meant to be a nuclear weapons state. Paul Doty and his colleagues at Harvard and MIT were deeply involved in such efforts, as was Pugwash and other groups. Looking back, many observers believe that these exchanges had a positive impact on the course of the Cold War, making it less dangerous than it otherwise would have been.⁸⁸

As regards North Korea, private individuals—academics, retired officials, and others—have visited North Korea over the years for talks with DPRK officials. These exchanges in North Korea as well as other meetings in “neutral” countries have provided a vehicle for communication in the absence of formal diplomatic relations. On occasion, these visits have yielded information that was communicated to the U.S. government that directly affected U.S. policymaking.⁸⁹

So far, U.S. and international sanctions have not prevented these kinds of interactions, but new rounds of restrictions may have the inadvertent effect of discouraging, constraining, or even preventing those exchanges.⁹⁰ It is difficult to measure the impact of positive engagement beyond individual cases and the testimony of U.S. policymakers who have pointed to the value of having alternative sources of information on North Korean intentions. One can imagine that this is a circumstance in which the value of positive engagement is generally modest—until a particular moment arrives when it suddenly becomes critical. If that is the case, and sanctions inadvertently inhibit those information flows, then policy makers may 1) miss opportunities to advance their policy goals with the DPRK and 2) miss opportunities to prevent a crisis or some other negative outcome.

4) Imposes costs on the North Korean civilian population

Sanctions can hurt vulnerable civilian populations.⁹¹ In recent years, the U.S. has emphasized targeted sanctions, ones that seek to avoid imposing significant costs on average citizens. The

⁸⁸ Homans, Charles. “Track II Diplomacy: A Short History.” *Foreign Policy*, June 20, 2011. <http://foreignpolicy.com/2011/06/20/track-ii-diplomacy-a-short-history/>; “Pugwash Conferences on Science and World Affairs - History.” http://www.nobelprize.org/nobel_prizes/peace/laureates/1995/pugwash-history.html; Martin, Douglas. “Paul Doty, Biochemist and Arms Control Advocate, Dies at 91.” *The New York Times*, December 6, 2011. <http://www.nytimes.com/2011/12/07/science/paul-doty-biochemist-and-arms-control-advocate-dies-at-91.html>.

⁸⁹ U.S. officials have confirmed that information reported from these interactions has generated new and important data that reached the highest levels of the U.S. government.

⁹⁰ South Korea, whose national laws regulate interactions between North and South Koreans, may be seeking to reduce these exchanges. “S. Koreans Fined for Unauthorized Contact with N. Koreans.” *The Korea Herald*, June 13, 2016. <http://www.koreaherald.com/view.php?ud=20160613000567>.

⁹¹ Pape, Robert A. “Why economic sanctions do not work;” Pape, Robert A. “Why economic sanctions still do not work.” *International Security* 23, no. 1 (1998): 66-77.

interest in targeted sanctions reflects a new American sensitivity to the humanitarian costs of sanctions. This is, in part, a consequence of U.S. sanctions against Iraq in the 1990s, which were widely seen as having had a devastating impact on Iraqi civilians.⁹²

Still, even targeted sanctions have had adverse economic and societal.⁹³ Sanctions on Iran, for example, typically had “carve outs” that exempted food, medicines, and other humanitarian goods. Despite these exceptions, U.S. sanctions on Iran appeared to have had a negative impact on the delivery of humanitarian goods, as risk-averse banks and related entities avoided any involvement with Iran, even in the face of clear statements by the U.S. Treasury Department that such trade was permitted.⁹⁴ (This problem of “de-risking is discussed below in the context of “compliance culture.”)

To date, humanitarian organizations working in the DPRK have not reported that past U.S. and international sanctions have substantively interfered in the delivery of humanitarian aid. That may be changing, however. There are some indications that the international push for sanctions may have negative effects on non-governmental organizations (NGOs) operating in the North. As some countries have moved to impose their own national sanctions on the DPRK, they have not consistently provided exemptions for humanitarian aid. It appears that South Korean restrictions, for example, have slowed or even prevented humanitarian assistance.⁹⁵ Officials concerned about humanitarian aid have also cited recent problems with the UN World Food Program’s ability to provide assistance to the DPRK.⁹⁶ All this comes at a time when the Kim government has ominously warned of an “arduous” march ahead and imposed two consecutive loyalty campaigns intended to extract even more resources from the North Korean population.

<http://www.jstor.org.libproxy.mit.edu/stable/4329469>.

⁹² Baram, Amatzia. “The Effect of Iraqi Sanctions: Statistical Pitfalls and Responsibility.” *Middle East Journal* 54, no. 2 (2000): 194-223; Hoskins, Eric. “Humanitarian Impacts of Sanctions and War in Iraq,” in *Political Gain and Civilian Pain: Humanitarian Impacts of Economic Sanctions*, edited by Thomas Weiss, David Cortright, George Lopez, and Larry Minear, 112. New York: Rowman & Littlefield, 1997.

⁹³ Rosenberg et al. “The New Tools of Economic Warfare: Effects and Effectiveness of Contemporary U.S. Financial Sanctions,” 20.

⁹⁴ Setayesh, Sogol, and Tim K. Mackey. “Addressing the impact of economic sanctions on Iranian drug shortages in the joint comprehensive plan of action: promoting access to medicines and health diplomacy.” *Global Health* 12 No. 31 (June 8, 2016).

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4897941/>; Namazi, Siamak. “Sanctions and Medical Supply Shortages in Iran.” *Viewpoints*. Washington: Wilson Center Middle East Program, February 2013.

https://www.wilsoncenter.org/sites/default/files/sanctions_medical_supply_shortages_in_iran.pdf.

⁹⁵ Padden, Brian. “How Will Sanctions Affect North Koreans?” *Voice of America*, April 11, 2016. <http://learningenglish.voanews.com/a/how-will-sanctions-on-north-korea-affect-its-people/3277042.html>

⁹⁶ For example, see Kim, Hyunjin. “Cash-strapped World Food Program Cuts Aid to N. Korea.” *Voice of America*. October 01, 2015. <http://www.voanews.com/content/cash-strapped-world-food-program-cuts-aid-north-korea/2987790.html>

Going forward, it will be particularly important to monitor the impact of sanctions on humanitarian relief. This is true for two reasons. First, there have been suggestions that the North may be facing a significant food security issue in the coming months. North Korean officials suggested in June of 2015 that they were facing the worst drought in a century, though NGO personnel on the ground have yet to report strong evidence of this. More recent assessments by the UN suggest, however, that the food security issues are real.⁹⁷ Second, the current economic slowdown in China may negatively affect economic conditions in the DPRK, putting the general population at greater risk. In a “military first” society, workers and peasants will be last in line if foods, medicines, and other humanitarian goods become scarce. Some combination of draught, economic slowdown, and sanctions might trigger a new humanitarian crisis in the Hermit Kingdom.⁹⁸

5) Increases risk of triggering North Korean collapse

One assumption underlying U.S. policy towards North Korea in the 1990s was the belief that a DPRK economic collapse was in the offing. With an economy that lacked a countrywide transportation network and suffered a chronically insecure food supply, it was an understandable assumption. The North Korean famine did take a terrible toll, and Pyongyang’s once totalitarian control over every aspect of North Korean life frayed. The reality, however, is that there are two North Koreas—the 99% and the 1%. While the former continues to struggle, the latter has thrived in the past decade.

A sanctions-induced collapse of the DPRK is, on its face, unlikely.⁹⁹ North Korea’s government has proven, despite predictions to the contrary, to be highly resilient. It has survived the loss of the Soviet Union and other patrons, the famine of the 1990s, two familial transfers of power, decades of sanctions, several failed attempts at economic reform, and international isolation. The notion that some future round of sanctions might tip the balance seems implausible.

⁹⁷ “North Korea Says it Faces Worst Drought in a Century.” *BBC News*. June 17, 2015. <http://www.bbc.com/news/world-asia-33160768>; UN Food and Agriculture Organization. “The Democratic People’s Republic of Korea Outlook for Food Supply and Demand in 2015/16 (November/October).” April 27, 2016. <http://www.fao.org/3/a-i5572e.pdf>. For an alternative view, see Ireson, Randall. “Why Headlines about DPRK Agricultural Production Miss the Point.” *38 North*, May 6, 2016. <http://38north.org/2016/05/ireson050616/>.

⁹⁸ Padden, Brian. “North Korea Sanctions Pose Human Rights Dilemma.” *Voice of America*, April 8, 2016. <http://www.voanews.com/content/north-korea-sanctions-pose-human-rights-dilemma/3275962.html>.

⁹⁹ For a different view, see Olson, Wyatt. “Retired USFK Head: North Korea Collapse May Happen Sooner.” *Stars and Stripes*, May 25, 2016. <http://www.stripes.com/news/retired-usfk-head-north-korea-collapse-may-happen-sooner-1.411276>. Some analysts point to a growing number of defections as a possible indicator of problems within North Korea. “Number of N. Korean Defectors Rises Again this Year.” *Yonhap News Agency*, June 5, 2016. <http://english.yonhapnews.co.kr/news/2016/06/05/0200000000AEN20160605000600315.html>; Jun, Ji-hye. “Defections Point to Instability in North Korea.” *The Korea Times*, May 25, 2016. http://www.koreatimes.co.kr/www/news/nation/2016/05/116_205448.html.

Moreover, at least one important actor—China—has a core interest in preventing such an outcome.¹⁰⁰

Still, policymakers and scholars are not very good at predicting or anticipating state collapse. From the Soviet Union to the Arab Spring, state failure has been easier to explain after the fact than to forecast. This likely reflects a number of factors, including the relative opacity of troubled states and a lack of information about various interaction effects between events. Different factors, each of which may be individually small may combine in unpredictable ways to set off a downward spiral.

It is worth noting in this regard that sanctions against North Korea have increasingly targeted the North's commodities industry, with the February, 2016 UN Security Council (UNSC) resolutions seeking to stop Pyongyang's coal and iron ore exports—or at least those whose revenues are used for weapons programs. These sanctions have broad exemptions, but it is precisely these kinds of sanctions, ones aimed at the North's core sources of state revenue, which could induce the broadest and most unexpected effects.

In sum, the risk of inadvertently inducing a DPRK collapse would seem to be small, but that risk could grow or be larger than we imagine, and the consequences could be catastrophic. It also seems unlikely that the U.S. and the international community know enough about the internal workings of the North to be able to calibrate the effects of the pressure they impose on the regime.

6) Increases risk of sanctions overreach that could backfire

With the effective application of targeted sanctions against Iran, there have been growing calls, primarily from Congress, for the greater use of sanctions. In response to these calls, Treasury Secretary Jack Lew felt compelled to respond publicly. Lew declared that while sanctions can be potent "... they are not the answer to every threat we face."¹⁰¹

An overuse of sanctions could lead friendly countries to defect from a sanctions regime. It could also incentivize governments to build alternatives to the dollar and the American banking system, and encourage sanctioned countries to form a cooperative bloc.¹⁰²

¹⁰⁰ Chinese President Xi Jinping said as much during an April 28, 2016 speech in which he said "we will absolutely not permit war or chaos on the peninsula." See Martina, Michael. "China Won't Allow Chaos or War on Korean Peninsula: Xi." *The Fiscal Times*. April 28, 2016. <http://www.thefiscaltimes.com/latestnews/2016/04/27/China-wont-allow-chaos-or-war-Korean-peninsula-Xi>.

¹⁰¹ Lew, Jack. *Remarks of Secretary Lew on the Evolution of Sanctions and Lessons for the Future at the Carnegie Endowment for International Peace*. March 30, 2016. <https://www.treasury.gov/press-center/press-releases/Pages/j10398.aspx>.

¹⁰² For a more expansive version of this argument that suggests that U.S. financial sanctions could create incentives to revise the structure of the global financial system to undermine U.S. financial power, see Arnold, Aaron. "The True Cost of Financial Sanctions." *Survival* 58 no. 3 (May 2016): 77-100. See also Rosenberg et al. "The New Tools of Economic Warfare: Effects and Effectiveness of Contemporary U.S. Financial Sanctions," 13, 38-39. Others would argue

Lew cautioned, “To preserve the effectiveness of sanctions over the long term, we must use them wisely. We must clearly articulate our goals, and we must provide relief when those goals are met.”¹⁰³

Sanctions against North Korea are unlikely to tip the balance and lead to a backlash or other responses that undermine the long-term utility of U.S. sanctions. North Korea is not a particularly popular country in the international system, and its economic footprint is small. One can imagine, however, a scenario in which unintended consequences combine, where a humanitarian disaster or collapse in North Korea creates greater animosity towards U.S.-led sanctions and a financial system dominated by the dollar.

Positive Unintended Consequences

1) Generates a market for compliance

Markets get created in many ways, and one way is that policymaking produces the need for a good. The U.S. sanctions on North Korea are first and foremost focused on North Korea, but their implementation requires that private firms follow certain rules or face the risk of punishment. This, in turn, establishes a market for “compliance.” Firms that want to avoid punishment will respond by establishing compliance departments, hiring in-house staff, seeking outside legal counsel, and other steps to buy the safety and stability provided by “compliance.” This is especially true for larger banking and other financial services firms participating in international commerce.¹⁰⁴

A number of policy concerns have driven the development of an international compliance architecture. Concerns about the drug trade, terrorism, money laundering, and other illicit activities carried out by criminal organizations, political non-state actors, and nation states have led the United States and other governments to establish rules and transparency measures to combat these activities.

that trade with the DPRK, or even Iran, is such a small fraction of total international commerce that it would be insufficient to motivate such a large change in international banking practices.

¹⁰³ Lew, Jack. *Remarks of Secretary Lew on the Evolution of Sanctions and Lessons for the Future at the Carnegie Endowment for International Peace*.

¹⁰⁴ Regarding corporate compliance incentives generated by sanctions, see Anderson, Alexandra L. “Good Grief! Iran Sanctions and the Expansion of American Corporate Liability for Non-U.S. Subsidiary Violations Under the Iran Threat Reduction and Syria Human Rights Act of 2012.” *Northwestern Journal of International Law & Business* 34, (October 1, 2013): 125. For the challenges of sanctions compliance that illustrates the desirability of developing a market for compliance-related services, see Rathbone, Meredith. “Sanctions, Sanctions Everywhere: Forging a Path Through Complex Transnational Sanctions Laws.” *Georgetown Journal of International Law* 44, (January 1, 2013): 1055. Jacqueline Shire suggests that compliance culture in private firms outside the financial sector has also grown, particularly in the area of export controls, but that it still lags financial firms. The difference may be the absence of a regulatory body and enforcement mechanisms found in the financial area. Shire, Jacqueline. Communication with the authors, July 2016.

Sanctions on North Korea have also contributed to this process, particularly in Asia. The continuing cycle of nuclear and missile tests followed by new sanctions has raised the profile of North Korea and, in turn, the question of corporate compliance. The emergence of a “compliance culture” is suggested by a number of developments.

One indicator is the emergence of a robust labor market for experienced compliance officers. Individuals who have worked on compliance with governments (e.g., OFAC) or the UN are in high demand in the corporate sector. In addition, a cottage industry of compliance-related businesses appears to be developing, one that includes new professional associations and publications, headhunters poaching talent from governments and competitors, and the presence of American law firms in Seoul and other regional commercial hubs providing compliance-related legal counsel.¹⁰⁵

A second indicator is the manner in which compliance is becoming institutionalized within firms. More CEOs are requiring frequent and direct briefings and reports on compliance, and senior compliance officers are located at regional branches as well as corporate headquarters. These moves are driven, in part, by the high profile fines and other punishments that the Treasury Department has levied against firms that were found to have illicitly processed wire transfers or payments for sanctions-designated foreign companies. Firms worry not only about fines or losing access to the U.S. market but also about the reputational damage that prosecution would bring.¹⁰⁶

The unintended consequence of spurring the development of a corporate compliance culture could prove to be a very powerful and positive unintended consequence. Increased compliance in Asian banking and finance would strengthen the effect of future North Korea sanctions but perhaps more importantly, could affect broader financial practices in Asia, the center of gravity for the twenty-first century global economy.

On the other side of the ledger is the danger of de-risking. Under that scenario, a desire for compliance leads banks, insurance companies, and other firms to avoid risk by simply ending all commercial and financial interactions with North Korea. That over-reaction would increase the dangers of a humanitarian crisis.¹⁰⁷

¹⁰⁵ See, for example, the Association of Trade Compliance Professionals, www.complianceprofessionals.org. Across industries, chief compliance officers at publicly traded firms earned an average base salary of \$200,000 per year. Jaeger, Jaclyn. “How Does Your Chief Compliance Officer Salary Measure Up?” *Compliance Week* 12, no. 142 (November 2015): 10.

¹⁰⁶ July 2015 research interviews with private sector firms in Hong Kong and Singapore.

¹⁰⁷ Rosenberg et al. “The New Tools of Economic Warfare: Effects and Effectiveness of Contemporary U.S. Financial Sanctions,” 34-37; “2014 Year-End Review of U.S. BSA/AML and Sanctions Developments and Their Importance to Financial Institutions.” Sullivan and Cromwell LLP, January 2015. <https://sullcrom.com/2014-year-end-review-of-us-bsa-aml-and-sanctions-developments-and-their-importance-to-financial-institutions>

2) Promotes North Korean elite engagement with the outside world

Traditionally, the DPRK has put a premium on the control of its domestic population and has tried to limit its citizens' exposure to the outside world. It restricts visits by outsiders as well as travel by North Koreans to other countries. It seems acutely sensitive about South Korean broadcasts from towers along the DMZ and message-filled balloons launched by South Korean NGOs. It employs a closed intranet that prevents domestic access to international websites. The regime's core ideology, *Juche*, is one that devalues anything and everyone outside the North.

Absent international sanctions, in a world where Pyongyang could obtain all it wanted, it would likely do so with the least amount of outside contact possible. It is in the political interest of the North Korean leadership to keep the Hermit Kingdom a hermit kingdom.

Interestingly, sanctions have forced the DPRK to become more cosmopolitan, if only to be able to find international suppliers for materials and technologies it cannot produce on its own or obtain through simple cross-border trade with China. As Pyongyang's procurement shifted from cross-border to embeddedness on the mainland and expanded their activities in Hong Kong, Southeast Asia, and beyond, more North Koreans officials have been living abroad for extended periods of time. This trend has persisted despite the execution of Jang Song-taek.

Many analysts assume that it is better for citizens from closed, authoritarian countries to see the outside world rather than to be cut off from it. Some contend that North Koreans abroad will see with their own eyes that their system is failing.

In sum, sanctions have forced the North to let more of its citizens get a peek at the outside world. It is difficult to know whether that dynamic matters, and whether it has happened in sufficient numbers to be consequential, but it is more likely a positive effect than a negative one.

Unintended Consequences Whose Effect Could be Either Negative or Positive

1) Introduces North Korean elites to markets

As the DPRK sends more people abroad to engage in procurement, more North Koreans learn how international markets work—how to set up contracts, acquire financing, obtain insurance, establish logistics, and other tasks. Some of these markets are legitimate. Others are black, gray, or underground, but they are markets nonetheless. And as North Korean STCs have hired larger and more sophisticated Chinese brokers, they have doubtless learned new skills. One effect of this process is that an increasing number of North Korean managers are forming their own businesses on the side.

It is difficult to say whether this phenomenon will be positive or negative. On the one hand, it could be said that the more North Koreans learn how to function in markets, the better. It would be consistent with the Chinese model of economic liberalization and political evolution. Its decision to pursue economic liberalization in the 1970s has been accompanied by an evolving economy and less harsh domestic politics. The Chinese model is one of the few scenarios for the future of North Korea that does not end in revolution, war, or collapse.

On the other hand, as more and more North Koreans acquire market skills, sensibilities, and sophistication, it may be easier for Pyongyang to skirt sanctions and improve its ability to acquire illicit weapons technologies. Put another way, as the North increases the capacities of its human capital, those new capabilities can be deployed in the service of both welcome and unwelcome objectives.

2) Fosters corruption

The study of sanctions has long suggested that sanctions breed corruption.¹⁰⁸ Sanctions busting is often an illegal act that requires bribes, deception, and other unsavory practices. It is probably safe to assume that sanctions have, at least on the margins, further contributed to corrupt practices by DPRK officials. It is less clear whether the North would be less corrupt in the absence of sanctions. Corruption is an issue in many of the countries in the region, and there are other features of the North's political system that encourage corruption.¹⁰⁹

Perhaps more important for this inquiry is the question of whether greater corruption in the North is a good thing or a bad thing. Corruption might have the effect of reducing the efficiency of the North's procurement network, thus undercutting some of the gains it has made with its increasing sophistication and capability. Widespread corruption might also contribute to popular dissatisfaction with the government and thus hasten a political transition. Whether that is to be welcomed or not depends on the nature of the "transition." A Soviet style soft landing would be welcomed; a failed nuclear weapons state with internal strife and an increased risk of conflict on the peninsula would not.

Assessing the Unintended Consequences of North Korea Sanctions

Not surprisingly, the use of sanctions against the DPRK has had varied inadvertent effects. Many of the potential unintended consequences considered here either have not manifest themselves or have had only minor effects so far, e.g., incentivizing cooperation with other sanctioned entities or increasing corruption.

¹⁰⁸ See Andreas, Peter. "Criminalizing Consequences of Sanctions: Embargo Busting and Its Legacy." *International Studies Quarterly* 49, no. 2 (June 1, 2005): 335–60; Rosenberg, et al. "The New Tools of Economic Warfare: Effects and Effectiveness of Contemporary U.S. Financial Sanctions," 19.

¹⁰⁹ Park, Young-Ja. "Informal Political System in North Korea: Systematic Corruption of Power-Wealth Symbiosis." *International Journal of Korean Unification Studies* 24, no. 1 (June 2015): 123; Habib, Benjamin. "North Korea's parallel economies: Systemic disaggregation following the Soviet collapse." *Communist And Post-Communist Studies* 44, (January 1, 2011): 149-159.

Table 2. Unintended Consequence of Sanctions on North Korea

Negative Unintended Consequences
1) Strengthens North Korean capabilities
2) Incentivizes collaboration with illicit networks and states of concern
3) Hinders positive forms of engagement
4) Imposes costs on the North Korean civilian population
5) Increases risk of triggering North Korean collapse
6) Increases risk of sanctions overreach that could backfire
Positive Unintended Consequences
1) Generates a market for compliance
2) Promotes North Korean elite engagement with the outside world
Potentially Negative or Positive Unintended Consequences
1) Introduces North Korean elites to markets
2) Fosters corruption

In this regard, it is worth remembering that this process is likely to be dynamic. It may evolve over time such that an unintended consequence that is significant today could be less so in the future or consequences that seem modest in likelihood or impact loom larger down the road. For example, the ways in which sanctions actually improve the North's procurement capabilities could decline over time, while the risk of a sanctions-induced collapse might increase, especially if there is a significant downturn in the Chinese economy.

In addition, nothing said in this report, including the findings regarding the “sanctions conundrum” or other negative unintended consequences should be taken to suggest that sanctions cannot be effective or should be avoided. Indeed, the recommendations offered in this report for improving sanctions underline the proposition that sanctions have an important, if limited, role to play in constraining and reversing the North's nuclear and missile programs. Our findings emphasize that all policy actions generate unintended consequences, and even when the effects are negative, policymakers may nevertheless conclude that, on balance, the benefits justify the costs. In short, this research is *not* an argument that sanctions are ineffective or to be avoided. Rather, it points to the reality of unintended effects and the need for policy actors to recognize them and respond accordingly.

Turning the Tables: The Unintended Consequences of Sanctions Evasion for North Korea

This research has been primarily concerned with North Korean innovations in the face of sanctions and the unintended consequences of sanctions imposed on the DPRK. It is worth remembering, however, that if all policy actions carry unintended consequences, then the counter-measures developed by the DPRK to evade sanctions—embeddedness in China, use of private Chinese companies, etc.—will generate unintended consequences of their own for Pyongyang. The logic further suggests that some of these will be positive and some will be negative, i.e., *create new vulnerabilities*. Put another way, North Korea's actions to counter sanctions may create new opportunities for governments to undermine North Korea, Inc. and its

WMD procurement.¹¹⁰ The fact that more North Korean procurement is taking place outside of the DPRK and that the North has parked large sums of money in Chinese banks means that North Korean procurement is more vulnerable, at least compared to the old system where STC managers resided in the North and Pyongyang was able to exercise tighter control.

Recent high profile defections make that point, but of even more interest are the actions Pyongyang has taken along its border.¹¹¹ As STC commerce has increased and broadened, so too has the participation of private North Korean actors in market activities along the Chinese border. The regime has probably tolerated these business ventures, because this unregulated commercial activity generates income for North Korean citizens, much like grey markets inside the DPRK. Pyongyang, however, has cracked down on these activities by withholding visas for North Koreans looking to visit China on business.¹¹² Though it is impossible to know, it may be that the reason for curtailing the activities of private traders is to reduce competition and increase revenues for the state-owned trading companies also operating at the border. (The DPRK also appears to be allowing new competition between STCs for the similar types of trade.¹¹³) If true, it suggests both that the STC system had the unintended consequence of spurring market activity by North Korean citizens and that this, in turn, had the effect of undercutting STCs at a time of potential austerity. At this moment, it is difficult to assess the political or economic side effects such actions may cause, but they illustrate the fundamental point that North Korean sanctions evasion will generate its own unintended consequences, and that policy makers would be well advised to monitor these dynamics and the opportunities they might provide to disrupt DPRK procurement.

IV. Policy Recommendations

Goals and Objectives

Before enumerating various recommendations, it is important to first be clear about goals, objectives, and the logic of the policy options being offered. This would seem obvious, and yet much of the conversation about sanctions on North Korea, and more centrally, much of the proposed legislation and executive action in this arena, appears confused on this score. Sanctions can have many different and mutually exclusive goals. It is critical to separate out

¹¹⁰ We are indebted to the Asan Institute, which hosted a briefing on this research, and at which, scholars offered hypotheses about how the DPRK's evolving procurement practices could have broader implications for the North's future.

¹¹¹ The defections have, in turn, forced Pyongyang to take new measures, which themselves may have unforeseen consequences. Kim, Joohno. "Stung by Defections, North Korea Steps up Indoctrination of Workers in China." *Radio Free Asia*, July 1, 2016. <http://www.rfa.org/english/news/korea/korea-ideology-07012016124911.html>.

¹¹² Moon, Sunghui. "Suspension of Travel Visas to China Creates Hassles for North Koreans." *Radio Free Asia*, June 16, 2016. <http://www.rfa.org/english/news/korea/suspension-of-travel-visas-to-china-06162016154059.html>.

¹¹³ "N. Korean Traders Going All Out to Receive Permits: Report." *The Korea Herald*, June 20, 2016. <http://www.koreaherald.com/view.php?ud=20160620000679>.

these competing goals, not only because they may be at odds with each other, but also because they entail wildly different probabilities of success, time horizons, and costs.

Some policymakers would be willing to eschew regime change, if Pyongyang’s missile and nuclear programs could be frozen and rolled back. Others find that unacceptable and will settle for nothing less than an end of the Kim regime.

Table 3. Possible Goals for Sanctions Against North Korea

Concept	Description
1) Denial	E.g., cutting access to WMD or other technology
2) Coercion	E.g., to force North Korea to the bargaining table
3) Bargaining	E.g., having something to trade for concessions ¹¹⁴
4) Punishment	E.g., for human rights violations
5) Inducing regime collapse	E.g., regime change

A lack of clarity and consensus about goals is evident both in Congress and the executive branch. On Capitol Hill, there is no shortage of legislative proposals that mix opposing goals. That is not surprising given the nature of the legislative process and the need to attract support from members with differing views, but one observes these conflicts within the executive branch as well, where some officials focus on halting North Korea’s nuclear program even as others threaten actions that would harm the North Korean people and not just the Kim leadership.¹¹⁵

The recommendations offered in this report focus on *denial*, that is, reducing and eventually halting the DPRK’s acquisition of WMD-related materials and technology. This goal has a more immediate timeline and a narrower focus. It also avoids some of the larger risks and potentially negative unintended consequences of a regime change policy aimed at a nuclear weapons state.

Given a goal of reducing and even halting progress in North Korea’s nuclear and missile programs, there are a number of objectives a government can pursue—objectives informed by the DPRK’s recent behavior. Over the last several years, Pyongyang’s procurement has evolved in a particular direction. North Korea has expanded the scope of its procurement efforts: moving from the border and embedding inside China as well as using commercial hubs in Southeast Asia. Its procurement officials are working abroad and taking up residence for a longer tenure. It has hired more sophisticated and capable foreign partners, some of whom are ethnic Koreans.

¹¹⁴ Sanctions for bargaining could also include incentivizing the DPRK to cooperate with international bodies like the IAEA.

¹¹⁵ In particular, talk in the media about cutting off remittances would seem to be an action that could have an adverse impact on the civilian, non-elite population, even assuming the government skims a sizeable share of those monies. Mohammed, Arshad and David Brunnstrom. “US Says North Korean Remittances at Risk if it Conducts Nuclear Test.” *Reuters*, April 20, 2016. <http://in.reuters.com/article/northkorea-nuclear-usa-idINKCN0XG2CI>.

It would seem to follow, therefore, that the objectives of a robust denial policy would be to reduce the scope of North Korea, Inc.'s operations (i.e., fewer operations in fewer places), cut the number of procurement officials working in foreign countries, decrease the tenure of DPRK procurement officials (i.e., higher turnover), and discourage or disrupt Pyongyang's use of Chinese and other middlemen.

In different ways, the recommendations offered here attempt to advance these objectives. Some of the suggestions manage to avoid the "sanctions conundrum," for example, by disrupting North Korea, Inc. directly. Others do not, and thus will require focused attention to insure that they do not inadvertently increase North Korean capabilities. Many of the most important recommendations are directed at new ways of thinking, modeling, and testing prospective policy remedies.

It should be noted that any interested government, not just the United States, could adopt many of these recommendations. In our discussions with policymakers in the region, it became apparent that some recommendations might be better suited to South Korea, Japan, China or other states. Moreover, many of the recommendations are likely to be more effective if implemented by more than one country.

Table 4. Policy Recommendations

Engage China
1) Encourage China to use its domestic laws to counter North Korea, Inc.
2) Encourage China to send strong signals to its private industry
Build Capacity
3) Improve the capacity of national governments
4) Build the capacity of U.S. government to respond to the misuse of DPRK embassies
5) Augment the capacity of the UN Panel of Experts on North Korea
Encourage a Culture of Compliance in Private Firms
6) Prioritize the prosecution of high profile cases of sanctions violations
7) Experiment with the use of incentives
Disrupt North Korea, Inc.'s Operations
8) Reduce the scope, size, and tenure of STC managers in China and the region
Information Collection and Analysis: Methods and Models
9) Analyze DPRK procurement as a business case study <i>Run game simulations with procurement managers from Asia</i> <i>Test potential sanction concepts with defector community</i>
10) Employ new models for analysis <i>View as commercial ecosystem</i> <i>Consider the mix of legitimate commerce and illicit trade</i> <i>Compare with others that engage in comparable practices</i> <i>Define blueprint of North Korean transaction</i> <i>Track North Korea, Inc.'s behavior to see if it tells us anything more generally</i>
11) Adopt an evidence-based and outcomes-focused approach to evaluation

None of the ideas discussed here promises a cure for the problem of North Korea's weapons programs, but taken as a whole they may advance the U.S. and international community's ability to slow the North's technological advancements. They may also generate positive unintended consequences, insofar as many of the steps would contribute to an architecture that can also be used to counter transnational criminal groups, violent extremist organizations, and other threats. And from a nonproliferation perspective, it makes sense to strengthen international institutions, if not because of North Korea today, then to deter a potential, future proliferator tomorrow.

Engage China

China is far and away the most important player in North Korean trade and procurement. It is not the only actor, as the DPRK has expanded its commercial and financial activities in Southeast Asia and beyond, but it is the center of gravity. No sanctions regime targeting North Korea will be successful without robust participation by Beijing.

Persuading China to increase sanctions pressure on the North has been difficult, however, as Beijing sees that there are risks in such a policy. Too much pressure and North Korea could crack or lash out. Pressure could also jeopardize whatever remaining leverage China has over the DPRK. If the leadership sitting in Pyongyang sees its neighbor to the north doing the bidding of its enemy, it may conclude that it is on its own, that it's the North against the world. That is a bad outcome for China and also one that makes any negotiated settlement even more difficult to achieve. A North Korea that can trust no other government to protect its interests will be less likely to give up its nuclear programs, even if it is promised a sufficient return in the bargain.

The policy challenge, therefore, is finding actions that can reduce North Korea's illicit procurement that China can fully embrace.¹¹⁶

1) Encourage China to use its domestic laws to counter North Korea, Inc.

How can China degrade the North Korean regime's illicit procurement while simultaneously minimizing the risk of a DPRK collapse and avoid alienating its neighbor to the south? One avenue is to use existing national laws—to which China is already committed—to target Chinese middlemen who assist the DPRK with WMD-related procurement.

First, China could deploy its already existing anti-corruption campaign. Beijing views anti-corruption as in its self-interest. It has already committed itself to a national campaign that goes after both "tigers and flies." North Korea, Inc.'s use of private Chinese brokers and banks, some of which may bribe party officials or are closely affiliated with corrupt local officials, can be targeted within the framework of China's ongoing anti-corruption campaign.

For its part, the U.S. and international partners could offer to assist China in this effort. Cooperation could include capacity building in the areas of port inspections and maritime law enforcement activities along shipping lanes between Chinese and North Korean ports.¹¹⁷ Pilot

¹¹⁶ On alternative approaches that recognize China's national interests, see Goldstein, Lyle J. "Time to Think Outside the Box: A Proposal to Achieve Denuclearization by Prioritizing the China-DPRK Relationship." *North Korean Review* 12, no. 1 (Spring 2016): 82-100.

¹¹⁷ July 2015 research interviews with private sector firms in Singapore.

projects focusing on training, reporting, and inter-agency coordination could promote improved practices and monitoring. At present, port inspections are fragmented and prone to understaffing relative to the volume of commercial activity.

Getting China to focus attention on North Korea, Inc. would be consistent with efforts that China initiated in 2013. There were indications at that time that the Chinese national authorities were seeking to “sanitize” Sino-DPRK commercial activities. The clearest sign has been the Chinese government’s issuance of a 236-page report titled “Technical Bulletin #59 on Prohibition of Dual-use Exports to North Korea.”¹¹⁸

Four institutions—the Ministry of Commerce, the Ministry of Industry and Information Technology, China Customs Bureau, and the China Atomic Energy Authority—produced this joint document. Given the technologies related to missiles and drones listed in the report, it is likely that the General Armaments Department of the Ministry of National Defense was also involved.¹¹⁹ An update to Technical Bulletin #59 was issued in early 2016 and may portend increased attention to the DPRK’s nuclear and missile procurement activities in China.

China should be supported and encouraged in these efforts. Anti-corruption is not explicitly anti-North Korea: the campaign is aimed at *Chinese* nationals, not North Koreans. Anti-corruption activities could have a disruptive impact on North Korean procurement without threatening the broader North Korean economy and the millions of average North Koreans who depend on it.

The Chinese government’s efforts to prevent drug trafficking and counterfeiting provide two additional examples of Chinese domestic policies that might also be used to disrupt the DPRK’s illicit commercial activities. The example of counterfeiting is particularly noteworthy given recent reports of a North Korean agent being arrested for trying to pass off counterfeited U.S. currency at a Chinese bank and allegations that Pyongyang is also counterfeiting Chinese currency.¹²⁰ It remains to be seen whether this is a one-off episode or instead represents a return

¹¹⁸ Cazavos, Roger, Peter Hayes, David von Hippel. “Technical Bulletin #59 on Prohibition of Dual-use Exports to North Korea.” *NAPSNet Special Reports*. September 26, 2013, <http://nautilus.org/napsnet/napsnet-special-reports/technical-bulletin-59-on-prohibition-of-dual-use-exports-to-north-korea/>. In the wake of recent DPRK weapons tests, Beijing has issued a follow on list of proscribed goods. See Rajagopalan, Megha. “China Says to Ban Export of More Dual-Use Goods to North Korea.” *Reuters*, June 14, 2016. <http://uk.reuters.com/article/uk-china-northkorea-nuclear-idUKKCN0Z01GS>.

¹¹⁹ Cazavos, Roger, Peter Hayes, David von Hippel. “Technical Bulletin #59 on Prohibition of Dual-use Exports to North Korea.”

¹²⁰ Ryall, Julian. “North Korea May have Resumed Counterfeiting Operation.” *The Telegraph*, June 28, 2016. <http://www.telegraph.co.uk/news/2016/06/28/north-korea-may-have-resumed-counterfeiting-operation/>; Shim, Elizabeth. “North Korea Printing Massive Amounts of Fake Chinese Currency, Defectors Say: The Illicit Project has Kim Jong Un’s Approval.” *United Press International*, June 23, 2016. http://www.upi.com/Top_News/World-News/2016/06/23/North-Korea-printing-massive-amounts-of-fake-Chinese-currency-defectors-say/2891466694503/.

to an old tactic resurrected in the face of new international sanctions. In any case, North Korean counterfeiting and the North Korean trade in drugs would represent a threat to Chinese national interests and provide cause for increased Chinese law enforcement activities.

2) Encourage China to send strong signals to its private industry

Premier Wen's visit to the DPRK in 2009 was a pivotal moment in Chinese-North Korean trade relations. Private Chinese firms viewed the visit and attending agreements as a green light for doing business with the DPRK. As Beijing now seeks to separate legitimate commerce with the DPRK from illegal commerce involving banned items and organizations, a clear signal from the top could reinforce efforts to encourage a compliance culture (see below). Such signals would not alter the behavior of firms knowingly engaged in illicit trade, but it would encourage companies that want to remain clean to be cautious in their dealings with certain types of transactions.

Following the passage of UNSCR 2270, Chinese officials made surprisingly strong statements about their intentions to enforce the new sanctions resolution. There were early signs that suggested that China was more aggressively implementing sanctions, including raids on North Korean officials alleged to be involved in illicit commerce as well as data indicating a sharp decline in trade.¹²¹ There were also reports of business as usual and a general skepticism about Chinese intentions.¹²² The fact that there appears to be continued confusion and a lack of coordination between local and central authorities is not surprising, and it may take time to

¹²¹ "China Arrests Dozens of Smugglers Trading Weapons with North Korea." *Yonhap News*, June 16, 2016. <http://english.yonhapnews.co.kr/news/2016/06/16/31/0200000000AEN20160616008700315F.html>; "China's Imports of N. Korean Goods Plunge 22.3% in April." *The Korea Herald*, May 24, 2016. <http://www.koreaherald.com/view.php?ud=20160524000638>; "Seoul Says North Korean Exports Have Plunged After UN Sanctions." *Latin American Herald Tribune*, July 1, 2016. <http://www.laht.com/article.asp?ArticleId=2415486&CategoryId=12395>; Nagai, Oki. "Cross-Border Trade Hints Sanctions on North Korea Taking a Bite." *Nikkei Asian Review*, May 26, 2016. <http://asia.nikkei.com/Features/Pyongyang-provocation/Cross-border-trade-hints-sanctions-on-North-Korea-taking-a-bite>; Rogin, Josh. "Satellite Imagery Suggests China is Secretly Punishing North Korea." *The Washington Post*, July 1, 2016. https://www.washingtonpost.com/opinions/global-opinions/satellite-imagery-suggests-china-is-secretly-punishing-north-korea/2016/06/30/8638d8d6-3ee8-11e6-80bc-d06711fd2125_story.html. For an alternative view see, Boutin, Paul. "Is China Cutting Off North Korea? New Analysis of Satellite Images Say No." *Medium*, July 26, 2016.

¹²² "What Sanctions?" *The Economist*, March 12, 2016. <http://www.economist.com/news/china/21694578-border-between-china-and-north-korea-it-business-usual-what-sanctions>; Hunt, Joshua. "Decoder: North Korea's Maritime Industry—How UN Sanctions Targeting the Hermit Kingdom's Shipping Business Awaken Pyongyang's Creative Spirit." *Foreign Policy*, May/June 2016. <http://foreignpolicy.com/2016/05/04/decoder-north-koreas-maritime-industry-united-nations-sanctions-business-oil/>; Lankov, Andrei. "China and NK: Back to Square One." *The Korea Times*, June 12, 2016. http://www.koreatimes.co.kr/www/news/opinion/2016/06/304_206779.html.

discern the degree to which UNSCR 2270 represents a new chapter in North Korea sanctions implementation.¹²³

In any case, Chinese officials should be encouraged to continue to send signals to its domestic business community that illicit commercial dealings with the DPRK are unacceptable. It can promote this message in a number of different ways, from public statements, to the promulgation of additional regulations (building on Technical Bulletin #59), to the prosecution of high profile cases.

Here it will be important that Chinese officials address both the issues of *severity* of punishment and *likelihood* of punishment. A slap on the wrist for Chinese middlemen, even if done with frequency is unlikely to alter broker behavior. On the other hand, severe punishments that are rarely enforced will also fail. Chinese officials will need to communicate that 1) the punishment will be robust, 2) the probability of getting caught and facing that punishment is not trivial, and 3) that Chinese businesses can avoid punishment and still do business with the DPRK *as long as they do not support illegal procurement*. This third message is equally important as it provides a way for Chinese businesses (and the government) to avoid an all or nothing decision. Both Beijing and its business community can maintain ties to the DPRK, which it views as in its self-interest while reducing North Korean procurement for its WMD programs.

Build Capacity

A sanctions regime is only as good as its implementation by individual, sovereign countries—countries that vary in their administrative capacities and interests. Three areas appear ripe for the kinds of capacity building that would improve sanctions enforcement:

- the ability of individual governments to track international trade and financing
- the ability of the U.S. government to monitor and counter the DPRK’s use of its embassies and consulates for procurement
- the ability of the UN Panel of Experts to collect evidence and report on country performance and DPRK practices

Unlike many areas of U.S. foreign policy, where the executive branch takes the lead, capacity building is a policy tool that Congress can pursue. It is a natural follow-on to sanctions legislation passed by Congress, and it falls squarely within the privileges of the power of the purse.

¹²³ Haggard, Stephan. “Once Again, Sanctions Enforcement.” *Peterson Institute for International Economics*, July 5, 2016. <https://piie.com/blogs/north-korea-witness-transformation/once-again-sanctions-enforcement>; Lee, Chaeryung Claire. “An Interview with David Kang: The New Sanctions Regime against North Korea and its Implications for US Policy.” http://nbr.org/downloads/pdfs/psa/kang_interview_03172016.pdf.

3) Improve the capacity of national governments

Even if country partners have the political will to pursue DPRK-related sanctions, they may lack the ability: national enabling legislation, human capital, technical infrastructure, and other elements are needed for implementation and enforcement.¹²⁴

Helping governments build their capacity to collect data for sanctions enforcement is no small undertaking, as the UN Panel of Experts reports would illustrate. Still there are priorities. Assisting regional governments in East and Southeast Asia should be the first priority, and particularly in the areas of shipping and finance. Japan has long promoted capacity building, including in the area of nonproliferation and illicit procurement, but the U.S. and other partners can do more. Support could take many forms, from assistance with the digitization of records and electronic infrastructure, to the training of regulators, to peer-to-peer advising.

4) Build the capacity of U.S. government to respond to the misuse of DPRK embassies

The DPRK has used its foreign ministry, through embassies and consulates, to place North Korean managers whose priority is illicit procurement. The UNSC explicitly refers to this practice in calling on member states to act against abuses of diplomatic privilege.

While the UNSC waits for members to heed that call, there is nothing that prevents governments from allocating additional resources to law enforcement officials or others seconded from elsewhere in the U.S. government to work at embassies and consulates in countries where the DPRK also has diplomatic relations to focus on North Korean procurement activities. These officials could reach out to local companies and government officials, matching the efforts of the North Koreans. It would be especially helpful if U.S. officials tasked with this job have Korean language skills, as the DPRK has often turned to ethnic Koreans living in other countries as partners. Indeed, one objective of these efforts should be to conduct outreach and build positive relations with the Korean-speaking business community in the region. These communities may be in a good position to identify and call attention to illicit activities by North Korean managers.

5) Augment the capacity of the UN Panel of Experts on North Korea

If increasing the capacity of national governments is meant to address institutional deficits or match the North Korean moves, then bolstering the UN Panel of Experts is about building on strengths. The UN Panel is arguably the single best public source of information on the enforcement of sanctions against the DPRK. It has direct, firsthand knowledge of North Korea, Inc.'s practices and may be the only international organization whose primary focus is Pyongyang's procurement. Its technical orientation has enabled it to provide objective information about North Korean procurement, and it has carried out its duties in a professional manner, consistent with the mandate of the Security Council.

Of course, the Panel's multi-national character means that there will be disagreements among panel members and within the Sanctions Committee to which the Panel reports. There will also be concerns over the sharing of sensitive information.

¹²⁴ See, for example, Eckert, Susan. "United Nations Sanctions on DPRK: Implementation Evasion, and Opportunities to Strengthen."

Despite those limitations, the Panel has performed well, and the U.S. and others should advocate within the UNSC for more resources and a broader mandate for the Panel. With additional support, the Panel could encourage a culture of compliance among small- and medium-sized firms that produce dual-use or proliferation-sensitive goods. It could also bolster information sharing between the public and private sectors on topics such as proliferation-sensitive trade finance.

Outside of the UN, individual member states, including the U.S., might consider the ways they could assist the Panel to carry out its objectives, e.g., enhanced information sharing.

Capacity building is not a new idea, either in general or in the domain of nuclear security. As with all capacity building, there is the need to build in sustainability. Will the technologies or practices first learned continue after the capacity building support ends? How can one incentivize an organization to commit over the long-term? These are central and difficult questions. It may help, however, that sanctions implementation may—because of its proximity to markets and market players—provide more opportunities for innovation, incentivizing, or experimentation than most arenas of public capacity building.

Encourage a Culture of Compliance in Private Firms

The recommendations offered so far have concerned public actors: China, national governments, and the UN Panel of Experts. A focus on North Korea, Inc. highlights the critical role played by private actors: those that knowingly engage in illegal activity (e.g., private Chinese brokers, some Chinese banks) and those that unwittingly contribute by selling goods or financing transactions they wrongly believe do not involve the DPRK.

As has been discussed, this group can be incentivized to affirmatively avoid illicit trade with the North. Indeed, the chief positive unintended consequence of sanctions on North Korea has been to further feed the development of a compliance culture in Asia, particularly in the financial services industry. Policymakers should seek to replicate this success with other kinds of firms, including trading companies, manufacturers, export-import firms, and the like. Doing so will not only help address the challenge of North Korean WMD programs but also a host of other illegal enterprises.

The two most straightforward ways to further catalyze compliance culture are to impose costs on violators (or establish the expectation of costs) and to offer incentives for compliance.

As the U.S., China, and the international community encourage compliance, they also need to make clear to firms that legitimate, legal commerce with North Korea is permitted, if not encouraged. China should welcome that approach, but other countries should as well. If companies overcompensate and seek to “de-risk” by cutting off all commercial activity with the DPRK, the humanitarian impact could be profound.¹²⁵

¹²⁵ See footnote 105.

6) Prioritize the prosecution of high profile cases of sanctions violations

The U.S., China, and other national authorities should prioritize the prosecution of larger firms with reputation equities that have violated sanctions rules. Aggressively pursuing violators and affirmatively publicizing those actions will encourage other firms to lower their risk of exposure to transactions that may involve the DPRK regime or its Chinese proxies.

7) Experiment with the use of incentives

Governments might also experiment with incentives that reward particularly high value behaviors. Incentives are an undervalued tool in international affairs, where the first response to objectionable behavior tends to be punishment.¹²⁶

Governments could test a number of ideas with small pilot projects, e.g., monetary rewards for the provision of information leading to the interdiction of prohibited items bound for, or originating in, North Korea. Unlike many areas of public policy, procurement is a highly marketized arena, where governments might be able to take advantage of competition or small payments to change behavior.¹²⁷ It may be possible to persuade a Chinese broker to provide information about a competitor or an STC manager, if he can make more money in the long run, e.g., by getting rid of a rival or winning new STC contracts. More broadly, the U.S., South Korea, China, and Japan are all far wealthier than the DPRK. This greater wealth represents a comparative advantage over the North that sanctioning countries should exploit. In short, the DPRK cannot win a bidding war with its wealthy opponents. Beyond that, it would be useful to identify non-monetary incentives that the DPRK cannot match, e.g., a U.S. green card.

Disrupt North Korea, Inc.’s Operations

Our research suggests that as the international community has imposed sanctions and raised the risk of doing business with the DPRK regime, STCs have compensated by monetizing the risk and paying higher fees to their Chinese partners thus improving their overall procurement capabilities—the “sanctions conundrum.” An obvious question, therefore, is how to hinder North Korean illicit procurement in ways that cannot be monetized and countered.

¹²⁶ See for example, Crumm, Eileen M. “The Value of Economic Incentives in International Politics.” *Journal of Peace Research* 32 no. 3 (August 1995): 313-330; Nincic, Miroslav. *The Logic of Positive Engagement*. Cornell, NY: Cornell University Press 2011.

¹²⁷ For example, the U.S. government offers rewards of up to \$5 million for information leading to the arrest and conviction of major drug traffickers, and unspecified rewards for information on transnational organized crime, including human trafficking, arms smuggling, and money laundering. See U.S. Department of State, “Narcotics Rewards Program,” <http://www.state.gov/j/inl/narc/rewards/c27667.htm>; and U.S. Department of State, “Transnational Organized Crime Rewards Program,” <http://www.state.gov/j/inl/tocrewards/index.htm>. Lessons can also be drawn from other established mechanisms for governments to receive information on trade finance via suspicious activity reports submitted to financial intelligence units. Shire, Jacqueline. Communication with the authors, July 2016.

One possibility is to disrupt North Korea, Inc. itself. U.S. and UN policies aimed at interdiction provide one example of disruption, but it is worth asking whether there are upstream opportunities—before the ship has sailed—to undermine North Korean procurement.

8) Reduce the scope, size, and tenure of STC managers in China and the region

The chart below offers a thought experiment. It begins with a list of DPRK adaptations and counter-measures and then specifies the benefits or advantages these adaptations have yielded. The last column offers general ideas about how one might seek to reverse those benefits.

Pursuing any of these ideas will be difficult, insofar as North Korean STC managers are operating in sovereign states, some of which may not be enthusiastic about the idea of outsiders (e.g., the U.S.) carrying out law enforcement or intelligence operations on their soil. Coordination and cooperation will be critical. Still, a focus on North Korea, Inc. *in situ* may generate new policy instruments for retarding North Korea's WMD programs. And already, some governments are beginning to focus on STC managers in their countries. Vietnam, for example, recently expelled two North Korean diplomats for prohibited activities.¹²⁸

Table 5. Responding to DPRK Procurement Counter-measures

NK, Inc. Adaptation	Benefit to North Korea	Possible Responses to Adaptation
Hire more capable PRC firms	<ul style="list-style-type: none"> ▪ PRC firms hide NK fingerprints ▪ PRC firms can do logistics and financing 	<ul style="list-style-type: none"> ▪ Threaten something of value to the more sophisticated Chinese brokers that make the profit margins from NK, Inc. not worth the trouble ▪ Conduct sting operations to increase buyer-seller suspicion and STC manager failure
Embed in China	<ul style="list-style-type: none"> ▪ Develop tacit knowledge ▪ Use Chinese banks 	<ul style="list-style-type: none"> ▪ Increase bank transparency, scrutiny, and standardization ▪ Reduce tenure of STC managers
Use of Hong Kong	<ul style="list-style-type: none"> ▪ Credibility/sophistication of Hong Kong firms 	<ul style="list-style-type: none"> ▪ Threaten something of value that is more valuable than NK, Inc. business
Use of commercial hubs in SE Asia	<ul style="list-style-type: none"> ▪ Less regulated, less in spotlight, less national capacity for sanctions enforcement 	<ul style="list-style-type: none"> ▪ Increase U.S. law enforcement and related presence in SE Asian commercial hubs ▪ Capacity building for governments ▪ Outreach to Korean speaking business community
Use of DPRK embassies	<ul style="list-style-type: none"> ▪ STC managers stay longer ▪ Enjoys immunities, privileges 	<ul style="list-style-type: none"> ▪ Reduce the tenure of NK STC managers who use diplomatic cover ▪ Encourage countries to reduce the number of NK consulates and diplomats assigned to embassies

¹²⁸ “Vietnam, China Ban Blacklisted North Korean Officials.” *The Chosun Ilbo*, July 8, 2016. http://english.chosun.com/site/data/html_dir/2016/06/03/2016060301468.html.

Information Collection and Analysis: Methods and Models

The U.S. policy response to North Korea's weapons programs has brought together relevant departments and agencies: State, Treasury and Defense, as well as the FBI, Directorate of National Intelligence, the National Security Council, and others. From a U.S. government perspective, the North's procurement efforts are viewed as an issue of national security or foreign policy. A full understanding of Pyongyang's procurement requires an additional lens, the company manager.

9) Analyze DPRK procurement as a business case study

In addition to the national security-foreign policy frame, Pyongyang's procurement is a business activity that calls for the analytical tools of political economists, economists, business scholars, commercial firms, and even business consultants. And it suggests that commercial intelligence, private or public, might be a useful information resource.

Critically, in an iterative game of action and reaction, analysts will want to look at the challenge of procurement from a North Korean perspective. That could include standard red teaming exercises but also business simulations with players who have direct experience conducting commercial transactions in East and Southeast Asia.

Perhaps surprisingly, North Korean behavior should be viewed from the prism of innovation. Whatever its rigid domestic system, North Korean STC managers have to reinvent themselves and their organizations in the face of new obstacles (sanctions). They have moved from using direct transactions and their own freighters for shipment to more efficient networks using brokers based in a globalizing, Chinese national economy. As the U.S. and its allies have introduced sanctions, the DPRK has changed, but as the DPRK has changed, others have failed to keep pace with the North's innovations.

10) Employ new models for analysis

Analysts might consider using alternative models that highlight different aspects of Pyongyang's behavior. There is a need to both step back and understand North Korean actions in a broader context and also to be more granular in mapping the specific steps in the North's procurement chain.

One way to better understand North Korea, Inc. is to realize that the DPRK operates in a regional and international commercial ecosystem. North Korean procurement is occurring in the context of a massive economic transformation that is taking place inside of China. In pursuit of its goal to move the majority of the Chinese population into the middle class, the senior leadership continues to prioritize the development of the Chinese national economy.¹²⁹ The scale and scope

¹²⁹ Reforming its population policy may now rival GDP growth among China's top priorities. Arguments, however, in favor of loosening China's traditionally strict population policies tend to be rooted in beliefs about the relationship between modest population growth and long-term economic health. For example, see "China said to Consider Policy Shift to put Population Growth Before Economy." *Bloomberg*. August 20, 2015. <http://www.bloomberg.com/news/articles/2015-08-20/xi-said-to-put-population-over-growth-in-china-s-economic-plan-idkp0hyy>.

of this experiment comprises a new gravitational force in the Asia-Pacific region. Viewing North Korea sanctions solely in terms of its impact inside of the DPRK misses the bigger picture. It is the broader ecosystem that makes the regime's procurement more efficient and effective.¹³⁰

Here again, it is important to recognize that the DPRK's procurement system is not the typical one used by a proliferator.¹³¹ It is not pursued as a wholly separate, dedicated proliferation enterprise. Instead, some fraction of its WMD-related procurement makes use of the same procurement networks that are used for the acquisition of legal goods, i.e., a procurement system that sometimes includes both legitimate commerce and illicit trade. Indeed, all the STC managers interviewed for this study engaged in mixed procurement. Accordingly, it will be important to map the North Korean regime's use of legitimate commercial pathways and their implications for proliferation-focused procurement activities. Doing so will yield an improved understanding of market mechanisms and practices that facilitate advancements in North Korea's WMD programs.

An alternative way to put the DPRK's illicit procurement in context is to compare it to other entities that engage in comparable practices. One would expect that the methods of A. Q. Kahn, transnational criminal organizations, violent extremist groups (e.g., ISIL or Da'esh), and other sanctioned states (e.g., Syria) and individuals would differ from the practices adopted by the DPRK, but there will be areas of overlap as well. By comparing the DPRK to others, an analyst can better understand Pyongyang's behavior and perhaps even anticipate future North Korean practices that are already being employed by other entities.

Analysts can also fruitfully move in the opposite direction: from the general to the particular. It would be useful for policymakers to have an evolving blueprint of the North Korean procurement chain, from the decision to procure an item until its successful delivery—complete with timelines and costs. Establishing a baseline transaction map would help policymakers devise counter-tactics and would allow analysts to chart changes in North Korean practices (and changes in the business environment) over time.

Finally, analysts might attempt to construct their own model of procurement, complete with indicator lists, and test whether it is predictive of North Korean behavior in any other domain. Put another way, analysts might want to see if the North's behavior in this one area tells us anything more generally about the DPRK, and where it is headed.

11) Adopt an evidence-based and outcomes-focused approach to evaluation

Evaluating whether a public policy is effective, ineffective, or actually harmful is typically difficult, especially in foreign policy with its multiple players and relatively low information. Nevertheless, policymakers should feel obliged to do the best they can. With regard to sanctions, the room for improvement is substantial.

¹³⁰ July 2015 research interviews with private sector firms in Hong Kong.

¹³¹ For an in-depth description of a dedicated, multilateral illicit proliferation network, see Albright, David. *Peddling Peril: how the secret nuclear trade arms America's enemies*. New York, NY: Free Press, 2010.

Aside from the work done by a small number of scholars, there is almost no attempt to systematically evaluate the effectiveness of sanctions. The presumption of policymakers is “more is better,” even if there is no evidence for such a conclusion. A related and arguably more misleading tendency is to judge the effectiveness of sanctions by whether sanctions are adopted. “Success” is then defined by whether there are sanctions, not on whether sanctions actually work. This is akin to judging the efficacy of a cancer drug by charting the number of pills prescribed.

Even on those rare occasions when the focus is on the effects of sanctions rather than sanctions for sanctions sake, the discussion typically consists of an advocate for one side or another in Congress, the executive branch, or the non-governmental community cherry picking a single indicator like inflation or GDP growth in a given year as “proof.”

If the U.S. and its partners want to achieve their policy objectives and avoid costly mistakes, then policymakers need to be serious about evaluation and adopt a more evidence-based approach.

A first step in this direction is to clarify the goals and objectives of a given sanctions policy (see above). One cannot know if a policy is a success or a failure without identifying the goals and objectives the policy is supposed to achieve. When policymakers mix and match different goals without separating one from another for evaluation, it is impossible to tell whether a policy is working.

After defining goals and objectives, the next task is to establish metrics and sources of data for those metrics. In the real world, there are rarely metrics complete with reliable data that perfectly measure success or failure. In many cases, evaluators are forced to rely on process measures rather than measures of outcomes, i.e., did the government do a good job of implementing the policy as opposed to actually achieving the desired result.

With respect to sanctions, typical process metrics include the number of shipments interdicted or the number of individuals and entities designated. Unfortunately, these numbers do not tell one very much about whether sanctions are effective, particularly if one does not know what the context is. Whether interdicting 100 shipments matters will depend, in part, on whether there are 1,000 shipments or 100,000 shipments and whether the shipments tend to carry WMD-related materials and technology rather than dry goods. Data on the number of interdictions is not worthless—zero interdictions would probably be a strong indicator of failure, for example—but it is a weak indicator of success. Similarly, judging sanctions by the robustness of the legal authorities provided might represent a political win, but it provides little evidence about whether a policy is working.

A somewhat better, though imprecise, indicator is trade flows. In discussions about the DPRK, one sometimes hears reference to the level of Chinese-DPRK trade, a time series published by the Korea Trade-Investment Promotion Agency, a South Korean government body. The problem here, obviously, is that it is hard to know what these numbers mean for WMD procurement. General trade could decline even as the DPRK’s WMD-related procurement increases. The opposite is true as well: general trade could increase even as Pyongyang faced increasing

difficulties importing weapons material and technology, e.g., if China was able to successfully “sanitize” its trade with North Korea.

As suggested earlier, this study prioritizes denial—stopping WMD procurement—rather than punishment or regime change as the goal of sanctions on the DPRK. Given that goal, it would make sense to employ a number of different outcome and process metrics. By way of illustration, outcome metrics might include the ratio of successful missile tests to unsuccessful missile tests over time (by type of missile), the length of time between missile and nuclear tests, changes in the qualitative aspects of the tests (missile payload, use of solid fuels, changes in design, etc.). If the policy is intended to retard or halt North Korea’s progress in its WMD programs, then outcome metrics should address whether and how quickly these programs are progressing and the rate of change over time.

Process metrics might include measures assessing the state of North Korea, Inc. The number of North Korean STC managers embedded in China and the region or the average tenure of these managers in foreign countries might offer some indication on the relative health of North Korea, Inc. An even more direct measure might be reports by former STC managers about the relative ease or difficulty of doing business.

None of these measures will be sufficient by themselves. The fundamental point, however, is that policymakers need to begin the process of conducting serious evaluation and employing an evidence-based approach. Early efforts will doubtless suffer a variety of limitations, but with attention, they will improve over time. In the absence of a conscious decision to enhance evaluation, they will not improve, leaving policymakers unable to discern whether their actions are making the situation better or worse.

V. Answering the Questions, Changing the Mindset, and Addressing a Post-UNSCR 2270 World

The 3 Questions

This inquiry began with three questions, and each has been addressed.

1) Do sanctions intended to reduce or halt WMD procurement work, and if not, why not?

No, sanctions against North Korea have not “worked.” The DPRK has slowly but steadily advanced its nuclear and missile capabilities despite increasingly strong sanctions resolutions.¹³²

¹³² As Bryan Early suggests, the DPRK’s continued progress in its missile and nuclear programs reflects a number of adaptations, not just sanctions evasion. Among these is “a ‘MacGyver’-like approach to its nuclear and missile programs” and “finding non-listed items just under the threshold for control/sanctions that were functionally similar.” Evasion and counter-measures are employed against national exports controls, multi-lateral strategic trade controls, and other instruments designed to inhibit the DPRK’s programs. Early, Bryan. Communication with the authors, July 2016.

In general, sanctions are hard to do, and in the case of North Korea, it has been particularly challenging. The DPRK is not Iran, and there are a variety of structural and political impediments that make effective sanctions even more difficult to achieve. In addition, North Korean procurement has evolved over time, innovating in the face of sanctions and employing new partners, practices, and pathways.

2) What, if any, unintended consequences—positive or negative—do sanctions against North Korea generate?

This study identifies a number of real and potential unintended consequences. On the negative side, the most surprising and unwelcome effect is the “sanctions conundrum”: the North Koreans simply monetized the risk caused by sanctions, paid higher fees, and thereby attracted more capable partners. Other negative consequences may or may not be in play (e.g., collaboration with other sanctioned parties, reduced positive engagement, sanctions overreach), but it is hard to measure a substantial impact at this point.

Two other unintended consequences may not be likely but would be significant if they took place: a humanitarian disaster or a hard collapse of the DPRK state—with the former more likely than the latter. China has strong incentives to prevent both these outcomes, but all the parties operate in a low information environment.

On the positive side, sanctions against North Korea have helped nurture a “compliance culture” among some of the larger Chinese financial firms that want to do international business. In addition, sanctions have forced the DPRK to locate more North Koreans abroad, where they must engage the broader world.

Finally, there are some consequences that might be positive or negative, though neither is likely to have an immediate or direct impact. One is that sanctions and North Korea’s decision to embed in China means that more North Koreans are learning market skills—a potentially double-edged sword, depending on the objectives to which these skills are employed. Another is that sanctions are likely to foster corruption.

3) What can be done to improve the effectiveness of these and other sanctions?

This study outlines a total of eleven policy recommendations. Included are suggestions for engaging China, building new capacities, encouraging a corporate culture of compliance, disrupting North Korea, Inc., and rethinking the methods and models analyzing North Korean procurement behavior.

Changing the Mindset

The recommendations on information collection and analysis posit that scholars and analysts need to think about the challenge of DPRK procurement in new ways. But it is not only scholars and analysts that need to rethink their approach. In the press, many policymakers’ attitude toward sanctions appears to be, “the more, the better.” This is particularly true for members of Congress and some executive branch officials. As one suggested, “Like a regimen of medicine,

the dosage can be upped when the effects fall short of what's required."¹³³ It is the right metaphor but the wrong conclusion. In the real world, upping the dosage does not guarantee success and often leads to unwelcome consequences. It can kill the patient (a North Korean collapse). It can also produce drug resistance—sanctions evasion innovations that undermine all sanctions or worse, actually improve North Korean procurement (e.g., “sanctions conundrum”). More is not better. Better is better; smarter is better. A blunt approach to sanctions is likely to fail and risks making matters worse, not better.

In addition, sanctions need to be put in a larger policy context. While many of the recommendations offered in this report could prove useful, the larger and unavoidable truth is that North Korea long ago crossed the threshold of a nuclear weapons capability. While there are debates over whether assessments have generally overestimated or underestimated DPRK weapons capabilities, the larger truth is that in the arc of nuclear development, the DPRK is somewhere in the messy middle. It can certainly build a simple but deadly nuclear weapon (e.g., using the gun-type design) and deliver it from a plane, but it is some distance from a militarily reliable nuclear arsenal with a secure second strike. Where along that continuum North Korea resides is a matter of debate, but small differences probably do not matter.

Put another way, the horse is already out of the barn, but it has not jumped the fence and left the farm. We judge that some elements of North Korea's nuclear and missile programs will continue to depend on procurement from other countries, and that at least for the near and intermediate term, denial of weapons-related material and technology is a worthy policy objective.

It seems unlikely at this juncture, but it is still possible that the DPRK will decide on an alternate path and forgo or limit its nuclear weapons at some point in the future. More effective sanctions could extend the time governments have to reach that objective, before the North reaches either a point of no turn or crisis. Sanctions cannot, however, remove North Korea's basic nuclear weapons capability. Nor can sanctions alone achieve denuclearization (or any policy objective) on its own; they must be integrated into a larger political strategy.¹³⁴

In sum, policymakers have to think about sanctions in new ways, and they have to devote as much attention to developing a practical political strategy as they do to sanctions.¹³⁵

¹³³ Mohammed, Arshad and David Brunnstrom. “US Says North Korean Remittances at Risk if it Conducts Nuclear Test.”

¹³⁴ Eckert, Sue and Thomas Biersteker. *The Impacts and Effectiveness of UN Nonproliferation Sanctions: A Provisional Report on the Targeted Sanctions on Iran and North Korea*; Litwak and Daly offer one path: Litwak, Robert, and Robert Daly. “How to Put North Korea's Nukes on Ice.” *Los Angeles Times*, May 6, 2016. <http://www.latimes.com/opinion/op-ed/la-oe-litwak-daly-north-korea-nuclear-freeze-20160506-story.html>.

¹³⁵ For example, see Wit, Joel S. “Trapped in No-Man's-Land: The Future of US Policy Toward North Korea.” *North Korea's Nuclear Futures Series*. U.S.-Korea Institute at SAIS. June 2016, 1-18.

UNSCR 2270 and Beyond: Anticipating the Future

The new international sanctions adopted by the UN in early 2016 represent an unprecedented and noteworthy diplomatic accomplishment. Few analysts expected language on North Korean coal, iron ore, jet fuel, or other items critical to the DPRK's revenue and procurement. Still, if there is one lesson from the research presented in this report, it is that the DPRK will not simply sit idly by; it will take counter-measures. Some of its adaptations will likely enhance its ability to procure while others will create new vulnerabilities and thus opportunities for governments trying to disrupt its weapons procurement. For example, as regards North Korean bank accounts, the North will likely respond by relying even more on private Chinese middlemen to be the financial "face" of DPRK procurement. There will be no North Korean bank accounts. They will be Chinese bank accounts. If UNSCR 2270 is to have its intended impact, then governments need to think as much about likely North Korean evasive maneuvers as they do about the next sanctions resolution, and they need to think about that today.

More broadly, China and South Korea will be at the center of whatever happens with North Korea. Changes in the Chinese economy, in the PRC-DPRK relationship, and in South Korean policy and military doctrine can create new dangers and new opportunities. U.S. policymakers will be obliged to factor in these changes.

Finally, if policymakers are to achieve their objectives, if they are to avoid the worst negative unintended consequences and maximize the positive ones, then there will have to be more and better information about North Korea, Inc. We have emphasized the limits of this initial research. The number of interview subjects is small and covers a particular period in time. Nonetheless, even this modest effort has generated new insights about DPRK procurement. It is a research topic that should not be limited to American scholars. Researchers in South Korea, China, Japan and elsewhere should be encouraged to take up this research program, and there is more work for American scholars as well. And given the resources available in these countries, this should represent a comparative advantage for the U.S. and its partners over the DPRK. If we fail to press that advantage and instead rely on slogans and intuition, we may miss our last opportunity to halt and rollback North Korea's nuclear and missile programs.

Appendix I. U.S. and International Sanctions Against North Korea

U.S. and International Sanctions Against North Korea

Pre-2006 U.S. Sanctions on North Korea

The October 9, 2006 North Korean nuclear test marked the beginning of a new era in U.S. and international sanctions towards North Korea. Long before 2006, however, the U.S. imposed sanctions on the DPRK. The United States maintained comprehensive economic sanctions on North Korea starting from the Korean War (1950-1953) until 1989. During this period, two main sanctions measures were applied. First, an economic embargo on the DPRK was imposed under the Trading with the Enemy Act (TWEA). Second, following the North Korean bombing of a South Korean civilian airliner in 1987, the DPRK was listed as a State Sponsor of Terrorism. These provided the basis for further restricting trade and financial transactions with North Korea.¹³⁶

From 1989 to 1995, the United States eased sanctions, initially on humanitarian grounds, and later as a consequence of successful U.S.-North Korea negotiations that led to the 1994 Agreed Framework. In September of 1999, North Korea adopted a moratorium on missile testing. The Clinton Administration responded positively with a comprehensive easing of sanctions. During the early 2000s, the Bush Administration applied sanctions related to North Korea's WMD proliferation activities. The DPRK ended its moratorium on missile flight tests in July of 2006.¹³⁷

UN and U.S. Sanctions for Nuclear and Missile Tests

Following North Korea's 2006 nuclear and ballistic missile tests, both the UN Security Council (UNSC) and the U.S. Treasury Department issued additional sanctions on North Korea. The Treasury Department drew upon the Executive Orders (E.O.) issued by the President for authority to sanction designated North Korean individuals and entities. These were early steps towards the development of the new, far more sophisticated U.S. sanctions machinery that has evolved within the Treasury Department over the past 10 years.

After North Korea conducted its first nuclear test at the Punggye-ri test site on October 9, 2006, the international community swiftly condemned the test and the UNSC imposed sanctions on

¹³⁶ Park, John. "Nuclear Ambitions and Tension on the Korean Peninsula," in *Strategic Asia 2013-2014: Asia in the Second Nuclear Age*, edited by Ashley J. Tellis, Abraham M. Denmark, and Travis Tanner. Washington: National Bureau of Economic Research, 2013.

<http://belfercenter.ksg.harvard.edu/files/nuclearambitionandtensionontheoreanpeninsula.pdf>;
Lee and Choi. "U.S. Sanctions and Treasury Department Actions Against North Korea." *North Korean Review* 4, no. 1 (Spring 2008): 10.

¹³⁷ McGrath, Matthew and Daniel Wertz. "North Korea's Ballistic Missile Program." The National Committee on North Korea, *Issue Brief*, August 2015. http://www.ncnk.org/resources/publications/Missile_Issue_Brief.pdf; Samore, Gary. "U.S.-DPRK Missile Negotiations." *The Nonproliferation Review* 9, No. 2 (Summer 2002): 16-20. <https://www.nonproliferation.org/wp-content/uploads/npr/92samore.pdf>.

North Korea through the adoption of Resolution 1718.¹³⁸ On June 26, 2008, the President issued E.O. 13466, declaring “a national emergency to deal with the unusual and extraordinary threat to the national security and foreign policy of the United States constituted by the existence and risk of the proliferation of weapons-usable fissile material on the Korean Peninsula.”¹³⁹ It was this E.O. that provided the basis for the Treasury Department, through its Office of Foreign Assets Control (OFAC), to launch its current North Korea sanctions program.¹⁴⁰

On May 25, 2009, North Korea conducted a second nuclear test, also at the Punggye-ri test site. The UNSC again imposed sanctions on North Korea with the adoption of Resolution 1874.¹⁴¹ On August 30, 2010, the President issued E.O. 13551, expanding the scope of the national emergency declared in E.O. 13466, and “providing for the blocking of property and interests in property of certain persons with respect to North Korea.”¹⁴²

On December 12, 2012, North Korea conducted a satellite launch, which was condemned by the international community as a long-range ballistic missile test. The Security Council passed UNSCR 2087 which reaffirmed and expanded sanctions outlined in UNSCRs 1718 and 1874. The Treasury Department implemented its first set of bilateral sanctions following the passage of UNSCR 2087.¹⁴³ North Korea conducted a third nuclear test on February 12, 2013, which it claimed was a successful test of a “lighter, miniaturized atomic bomb.”¹⁴⁴ After North Korea’s third nuclear test, the UNSC passed Resolution 2094. Susan Rice, then U.S. ambassador to the United Nations, argued that the new, stronger measures under this resolution would have teeth and would significantly impede “North Korea’s ability to develop further its illicit nuclear and ballistic missile programs, as well as its proliferation activities.”¹⁴⁵ Drawing on previous E.O.s, the Treasury Department issued another round of sanctions on North Korea.¹⁴⁶

¹³⁸ Park, John. “Nuclear Ambitions and Tension on the Korean Peninsula.”

¹³⁹ OFAC. “Sanctions with Respect to North Korea.” Department of the Treasury. <https://www.treasury.gov/resource-center/sanctions/Programs/Pages/nkorea.aspx>.

¹⁴⁰ Ibid.

¹⁴¹ Park, John. “Nuclear Ambitions and Tension on the Korean Peninsula.”

¹⁴² OFAC. “Sanctions with Respect to North Korea.”

¹⁴³ Press Release. “Treasury Sanctions Company and Individuals Linked to North Korean Weapons of Mass Destruction Program.” U.S. Department of Treasury, January 24, 2013. Treasury Sanctions Company and Individuals Linked to North Korean Weapons of Mass Destruction Program.

¹⁴⁴ Choe Sang-hun, “North Korea Threatens to Attack U.S. With ‘Lighter and Smaller Nukes,’” *The New York Times*, March 5, 2013.

¹⁴⁵ U.S. Mission to the United Nations, “UN Security Council Resolution 2094 on North Korea,” *Fact Sheet*, March 7, 2013.

¹⁴⁶ Park, “Nuclear Ambitions and Tension on the Korean Peninsula.”

Table 6. UN Security Council Resolutions on North Korea¹⁴⁷

UNSCR	Date	Reason	Measures Adopted	Vote
825	05/11/93	DPRK says will w/draw from NPT; IAEA says DPRK noncompliant	<ul style="list-style-type: none"> ▪ Calls upon DPRK to reconsider decision to withdraw from NPT ▪ Does not implement sanctions 	13-0 ¹⁴⁸
1695	07/15/06	DPRK launches a series of missiles on 07/04/06	<ul style="list-style-type: none"> ▪ Prohibits transferring technologies or materials to DPRK that would aid missile and WMD programs ▪ Prohibits acquisition of missiles or associated technologies from DPRK ▪ Prevents transfer of financial resources for missile or WMD programs 	15-0
1718	10/14/06	North Korea conducts a nuclear test 10/09/06	<ul style="list-style-type: none"> ▪ Reaffirms and expands UNSCR 1695 ▪ Prohibits sale or transfer of certain luxury goods to DPRK ▪ Enforces inspection of cargo for illicit materials related to WMD ▪ Bans import and export of arms and related items to and from DPRK ▪ Bans travel for select individuals ▪ Establishes a UNSC committee to review compliance with resolution 	15-0
1874	06/12/09	DPRK conducts a second nuclear test on 05/25/09	<ul style="list-style-type: none"> ▪ Reaffirms and expands UNSCR 1718 ▪ Prohibits financial assistance to DPRK, except for humanitarian needs ▪ Establishes a panel of experts 	15-0
2087	01/22/13	DPRK conducts a long-range rocket launch on 12/12/12	<ul style="list-style-type: none"> ▪ Reaffirms and expands UNSCRs 1718, 1874 ▪ Freezes assets of entities that provide financial support to DPRK ▪ Broadens travel ban to individuals associated with missiles and WMD ▪ Encourages members to enhance enforcement of existing sanctions 	15-0
2094	03/07/13	North Korea conducts a third nuclear test on 02/12/13	<ul style="list-style-type: none"> ▪ Reaffirms and expands UNSCRs 1718, 1874, and 2087 ▪ Blocks financial transactions or the transfer of bulk cash and DPRK access to international financial institutions ▪ Denies permission to aircraft wishing to take off from, land in, or overfly territory if is suspected of transporting prohibited items ▪ Extends the panel of experts ▪ Strengthens authority to inspect suspicious cargo to or from DPRK ▪ Requires states to deny port access to DPRK vessels refusing inspection 	15-0
2270	03/02/16	North Korea conducts a fourth nuclear test on 01/06/16 and a ballistic missile launch on 02/07/16	<ul style="list-style-type: none"> ▪ Reaffirms and expands UNSCRs 1718, 1874, 2087, and 2094 ▪ Reaffirms that members should prevent transfer to DPRK of all forms of tech training, advice, services, or assistance ▪ Prohibits transfer of “any item,” except food or medicine, that “could directly contribute” to military capabilities ▪ Requires that states engage in searches of all cargo from and to DPRK ▪ Freezes assets of and imposes travel bans upon 28 persons and entities ▪ Directs Panel of Experts to identify DPRK front companies ▪ Requires expulsion of DPRK agents, others engaged in sanctions evasion ▪ Calls on states to prohibit leasing or chartering flagged DPRK vessels ▪ Prohibits purchase of coal, iron, or iron ore from DPRK if used for WMD or missile programs ▪ Prohibits public and private financial support for DPRK illicit trade 	15-0

Following North Korea’s fourth nuclear test on January 6, 2016 and the launch of a satellite on February 7, 2016, the UNSC passed Resolution 2270 on March 2, 2016. On March 15, 2016, the

¹⁴⁷ UN Security Council Resolutions 825, 1695, 1718, 1874, 2087, 2094, and 2270, available at <http://www.securitycouncilreport.org/un-documents/dprk-north-korea/>. Park, “Nuclear Ambition and Tension on the Korean Peninsula” pp. 170-171. “Vote” refers to votes in favor of the resolution.

¹⁴⁸ China and Pakistan abstained.

President issued E.O. 13722, which blocked the “property of the Government of North Korea and the Workers’ Party of Korea.”¹⁴⁹

Table 7. U.S. Executive Orders (E.O.s) on North Korea¹⁵⁰

Executive Order	Date/President	Reason	Measures Adopted
13466	06/26/08 George W. Bush	<ul style="list-style-type: none"> ▪ Part of process of removal of DPRK from TWEA designation consistent with U.S.-DPRK negotiations.¹⁵¹ 	<ul style="list-style-type: none"> ▪ Declaration of national emergency to deal with DPRK proliferation threat. ▪ Extends sanctions under TWEA, which would have otherwise been lifted by forthcoming proclamation. ▪ Delegates to the Treasury Department responsibility for enforcing these sanctions.
13551	08/30/10 Barack Obama	<ul style="list-style-type: none"> ▪ Sinking of ROK Navy ship <i>Cheonan</i>. ▪ May 2009 nuclear test. ▪ Ballistic missile tests. ▪ Violation of UNSCRs 1718 and 1874. ▪ “Illicit and deceptive activities in international markets,” e.g., money laundering, smuggling, counterfeiting. 	<ul style="list-style-type: none"> ▪ Freezes assets of, bans trade with (‘blocks’) individuals and entities involved with North Korea’s illicit activities. ▪ Prohibits donations to these individuals and entities. ▪ Delegates to the Treasury Department responsibility for enforcing these sanctions.
13570	04/18/11 Barak Obama	<ul style="list-style-type: none"> ▪ Address possible issue with the Korea-US Free Trade Agreement.¹⁵² 	<ul style="list-style-type: none"> ▪ Bans imports of DPRK goods, services, and technology.
13687	01/02/15 Barak Obama	<ul style="list-style-type: none"> ▪ Cyber attack on Sony.¹⁵³ 	<ul style="list-style-type: none"> ▪ Blocks transfer of property and interests of the DPRK that are in or come to the U.S. ▪ Prohibits donations to DPRK. ▪ Restricts entry into the U.S. of DPRK officials.
13722	03/02/16 Barack Obama	<ul style="list-style-type: none"> ▪ Continuing pursuit of nuclear and ballistic missile programs, evidenced by recent tests. 	<ul style="list-style-type: none"> ▪ Freezes assets of, bans trade with (‘blocks’) property of DPRK government, WPK. ▪ Forbids U.S. persons to export or re-export goods, services, technology, or financing to DPRK. ▪ Delegates to the Treasury Department responsibility for enforcing these sanctions.

¹⁴⁹ Executive Order 13722, “Blocking Property of the Government of North Korea and the Workers’ Party of Korea, and Prohibiting Certain Transactions With Respect to North Korea” (Effective date - March 16, 2016).

https://www.treasury.gov/resourcecenter/sanctions/Programs/Documents/nk_eo_20160316.pdf

¹⁵⁰ National Archives. “Executive Orders Disposition Tables Index.”

<http://www.archives.gov/federal-register/executive-orders/disposition.html>.

¹⁵¹ Arms Control Association. “Chronology of U.S.-North Korean Nuclear and Missile Diplomacy.” March 2016. <http://www.armscontrol.org/factsheets/dprkchron%20>.

¹⁵² Noland, Marcus. “President Moves Preemptively on KORUS.” PIIE, April 19, 2011.

<https://piie.com/blogs/north-korea-witness-transformation/president-moves-preemptively-korus>

¹⁵³ “Obama Extends Executive Orders Imposing Sanctions on N. Korea.” *Yonhap*, June 22, 2016, <http://english.yonhapnews.co.kr/national/2016/06/22/0301000000AEN20160622000400315.htm>