Proliferation and Illegal Foreign Sales: Ensuring Regime Survival

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Abstract

In the past, North Korea's Kim rulers ensured regime survival by selling dangerous weapons. These exports earned large sums for the ruling group, of course. More important, weapons proliferation furthered Chinese foreign policy goals, thereby earning Pyongyang favor in Beijing. In recent years, however, China's officials apparently have been changing their attitude toward this deadly trade. If they have also changed their policies—and it is not clear that they have done this yet—continued proliferation by Pyongyang may worsen already difficult ties with its most important sponsor. In any event, Kim Jong Un, the North's current ruler, is trying to find other backers, most notably Japan and Russia. If he is successful, he will have more latitude to ignore Beijing's wishes, thereby permitting him to continue proliferation without fear of China's views on this matter

Keywords: Korea, North Korea, South Korea, China, United States, Iran, Syria, Kim Il Sung, Kim Jong Il, Kim Jong Un, Xi Jinping, proliferation, nuclear weapons, ballistic missiles, military, economy

Introduction

The Democratic People's Republic of Korea earns substantial sums producing and trading in contraband of almost every variety, including fake pharmaceuticals, counterfeit cigarettes, and real methamphetamines. It has even made and distributed its own American currency, the "Super K" \$100 bills or "supernotes." It actively trades in products made from endangered species.

The most significant of the regime's illegal exports, however, involves weaponry, both conventional and otherwise. Everything in its considerable arsenal is for sale, and it is not hard to figure out why it has become a proliferation superstar. The proceeds from merchandising Armageddon permit the Kim family to buy off important elements of the Pyongyang elite, thereby ensuring continuation of its despotic system.

Moreover, the DPRK, as the regime calls itself, uses that cash to support the Korean People's Army, the world's fourth-largest military, and to support its outsized weapons development programs.

More important, North Korea's proliferation in the past has appeared to further Chinese goals, and this certainly has strengthened Pyongyang's ties with its most important benefactor, thereby ensuring China's continuing support for Kimist rule.

There is evidence suggesting that illegal arms sales have increased under Kim Jong Un, who assumed power upon the death of his father in December 2011, yet it is not entirely clear that existing trends will continue. In short, the future of North Korean proliferation depends in large measure on whether Beijing continues to encourage Pyongyang's involvement in this deadly trade. Kim, who certainly understands this, is trying to find other backers to give him more freedom of action.

This article focuses on proliferation of parts, materials, know-how, and technology for nuclear weapons and ballistic missiles.

An Insubstantial Trade?

As an initial matter, how much does North Korea earn from its nuclear and missile sales? At the low end of the range is an assessment, cited by the U.N. Security Council's Panel of Experts in November 2010, of "\$100 million or more per year."²

There are indications, however, that the receipts are far more substantial. The U.N. Panel in its June 2013 report, for instance, notes a convicted arms trafficker had reported that the North sells intermediateand long-range missiles in sets of three with the unit price "in excess of US\$100 million." Even with discounts, it would appear that annual proceeds from sales would have to be far in excess of the 2010 estimate because of Pyongyang's robust trade in missiles.

A high-end assessment comes from Larry Niksch of the Washingtonbased Center for Strategic and International Studies. Niksch estimates that Pyongyang's proceeds are "between \$1.5 billion and \$2.0 billion annually" from just one customer, Iran. Of course, purchasers other than Tehran increase the total take.

Accordingly, North Korea's annual proceeds from exports of nukes and missiles look like they are close to the high end of the \$1 billion to \$3 billion range put forth by Bruce Bechtol of Angelo State University.⁵ Estimates of proceeds are complicated by many factors, including Pyongyang's willingness to accept barter arrangements, such as those involving agricultural products from Syria, sugar from Cuba, oil from Iran, and uranium from the Democratic Republic of Congo.

So, due to barter trade and other factors, no one outside the North Korean regime knows the true figure, and it's possible that no one inside that group knows either because arms sales are scattered across various stove-piped units. "The system is now so complex that it is difficult at times even for the North Korean government to control it," Bechtol writes. Analysts, including Bechtol, think the December 2013 execution of Jang Song Thaek, the uncle of Kim Jong Un, was the result of a fight to control rents, including the proceeds from proliferated weapons.

We should not be surprised by the ferocity of the infighting because there is so much at stake. After all, North Korea is now the world's master proliferator with a long client roster. There are hints, for instance, that the DPRK may have aided a Burmese effort to weaponize the atom, and, incredibly, the help could be continuing to this day.

More important, the DPRK has long-standing links to the Islamic Republic of Iran. The shadowy Mohsen Fakhrizadeh, thought to be Iran's chief nuclear scientist, was almost certainly in North Korea in February 2013 for Pyongyang's third test of an atomic device, 9 and it appears Iranians were also on hand for the previous two detonations as well. 10

Assistance to Iran has not been limited to tours of Punggye-ri, the North's test site in the mountainous northeast. Pyongyang has sold the Islamic Republic nuclear materials, perhaps even weapons-grade uranium. Moreover, North Korea instructed Iranian nuclear experts, who apparently traveled to the DPRK a decade ago, how to deceive the nuclear weapons inspectors of the International Atomic Energy Agency, the U.N. nuclear watchdog. 12

Not only has the DPRK worked for many years with Iran on its troubling uranium program, Meir Dagan, a former Israeli Mossad director, said in 2013 that North Korea is playing a major role in the building of a plutonium reactor in its own country. ¹³ There were technology transfers resulting from hundreds of the North's nuclear and missile specialists working in about ten Iranian facilities. ¹⁴ Proliferation expert Henry Sokolski noted in 2003 that there were so many North Korean weapons specialists in Iran that they had taken over an entire shoreline resort there. ¹⁵

Iran, in all probability, also paid Pyongyang for building the Dair Alzour reactor in the Syrian Desert, which bore striking similarities to the reactor in Yongbyon, North Korea. Ten North Koreans were reportedly killed by the Israeli air force when it bombed the Syrian site in September 2007. ¹⁶

In addition to nuclear cooperation, the North and Iran for more than a decade have operated a joint missile development program. Iranians reportedly witnessed North Korea's 1998 Taepodong test. ¹⁷ Ten Iranians were in country for the Taepodong-2 launch in July 2006 according to the Los Angeles Times, ¹⁸ and Assistant Secretary of State Christopher Hill, then Washington's point man on Korea, confirmed their presence. ¹⁹ In February 2009, North Koreans were spotted in Iran witnessing an Iranian missile test, and in the following month Sankei Shimbun, the conservative-leaning Tokyo newspaper, reported that 15 Iranians were in the North to provide launch assistance. ²⁰ Iranians were on hand for the DPRK's April 2012 launch, ²¹ and it is almost certain they were present for the December 2012 test as well. ²² In addition to witnessing all the long-range tests, Iranians have been present for all or virtually all of the North's intermediate-range firings. ²³

Significantly, the relationship between the two states looks like it has advanced beyond the visits stage. Iran in October 2012 may have started stationing personnel in North Korea at a military facility close to the Chinese border. The Iranians, from the Ministry of Defense and associated firms, are working on missile and nuclear programs. ²⁴ Tehran denied sending personnel to North Korea, ²⁵ but the report nonetheless makes sense in light of the two states having signed a technical cooperation agreement that September. ²⁶

Moreover, American intelligence sources indicate that Iran tested a North Korean missile for Pyongyang.²⁷ There are also clear indications that the DPRK provided missile flight test data to Iran.²⁸

The transfer of technology over time has been extensive. Iran's Shahab-3 is essentially a North Korean Nodong missile, and more advanced Iranian missiles, certainly the Shahab-5 and probably the Shahab-6, appear to be based on the long-range Taepodong models. Iran's solid-fuel Sejil is partially a product of Pyongyang's technology.²⁹

And the next North Korean ballistic missile to show up in Iran's inventory could very well be the road-mobile, nuclear-capable KN-08. "I would expect that even before its full test, this missile may be in the midst of an export program to Iran that is in fact helping to fund the ongoing North Korean development program," writes arms expert Richard Fisher of the International Assessment and Strategy Center. 30

Iran has been financing the North Korean program either by purchasing the North's missiles or by sharing development costs and receiving missiles in return. Iranian support explains how a destitute DPRK has the funds to carry on such an advanced weapons program over an extended period.

Moreover, as discussed below, Pyongyang traded missiles for Islamabad's centrifuges a decade ago, and missile sales may still be continuing. Scrape the paint off a Pakistani missile and, in all probability, you will find a North Korean one. For example, the medium-range Ghauri is really a Nodong.

There are a number of customers for the North's shorter-range ballistic missiles, most notably Syria. Yemen has also been a purchaser.

A "Proliferation Epicenter"?

North Korea looks like the world's biggest proliferation threat at this moment, but this was not always the case. Analysts point out that the North went all in as a proliferator to earn cash after the Cold War ended, when it lost its Soviet sponsor and the Chinese curtailed financial support. That observation is certainly true, but there was another reason for Pyongyang's growing arms export business. In short, Beijing began to support that activity to a far greater degree than it had in the past.

In the past, the People's Republic of China was the world's arch proliferator. Mao Zedong, its founder and first leader, adopted the view that nukes in the hands of socialists and "other peace-loving countries"—the non-aligned states—advanced the cause of world peace. But that was before Chinese technicians detonated their first atomic device in 1964. After that test, Beijing adopted a more cautious attitude, and by 1983 its pro-proliferation rhetoric was a thing of the past. China, the one nation that might have dispersed nuclear weapons widely, chose not to do so.

Nonetheless, Beijing selectively proliferated, starting with Pakistan. China began helping the fundamentally unstable nation build a bomb in 1974 by training Pakistani nuclear technicians. The initial aid was only "crude technology," but the Chinese followed up by handing over plans for a nuclear warhead and enough enriched uranium for two weapons. In 1994 and the following year, they sold five thousand ring magnets, used in gas centrifuges for enriching uranium. Beijing also appears to have provided nuclear test data, modern warhead designs, and plutonium technology for which there are no peaceful uses. China may even have

tested a Pakistani device on its soil.

Chinese support was crucial, extensive, and continuous. "If you subtract Chinese assistance from the Pakistani nuclear weapons program, there is no program," said Gary Milhollin of the Wisconsin Project on Nuclear Arms Control.³¹

China's assistance tailed off after three decades, once Pakistan had mastered the technology for the bomb. But Beijing, in a sense, did not stop proliferating. It appears Pakistan then became a surrogate, a strategic proxy, for transferring nuclear technology to North Africa and across the Asian land mass, especially the Middle East. China's leaders watched as the infamous smuggling ring of Dr. Abdul Qadeer Khan merchandised Chinese nuclear technology—parts, plans, and knowhow—for centrifuges to enrich uranium to weapons grade. Khan, considered the father of the Pakistani bomb, even sold blueprints adorned with Chinese characters for at least one of China's warheads.

The depth of Beijing's complicity in Dr. Khan's ring became evident in the early part of the last decade as investigators closed in on his global network. When Islamabad, goaded by Washington, ended the nuclear smuggling ring, the Chinese pressured Pakistan's leaders to conduct their inquiry quickly to avoid exposing the smuggler's China connections. A hurried probe, followed by Khan's confession and immediate pardon in 2004, is in fact what happened. Beijing supported Pakistani General Pervez Musharraf's controversial decision to end the inquiry prematurely.³²

Chinese officials, to borrow a Chinese metaphor, were caught "killing with a borrowed knife." Khan, as black marketer, looks like he was helping Beijing build relationships with governments desiring the world's most destructive weaponry. When he was eventually put out of business, Khan confessed to nuclear sales to Libya and Iran, and he probably had other customers in that general part of the world.

Moreover, Khan had one crucial relationship in East Asia. He assisted North Korea from the early 1990s until at least the middle of 2002 by selling most of what Pyongyang needed to enrich uranium to weapons-grade purity. In the later stages of their cooperation, the Pakistanis traded their uranium-enrichment expertise, in the form of centrifuges, for the DPRK's missiles. A Pakistani C-130, carrying centrifuge parts to North Korea and missiles to Pakistan, flew through Chinese airspace and refueled on Chinese soil at an air force base near Lanzhou in the central part of the country in 2002.

Beijing, at a minimum, had to have known what was happening. How could it not when China's two closest allies were trading China's most sensitive technology and using Chinese facilities to execute the exchange?

It's even possible China orchestrated the North Korean-Pakistani trade in the first place. It would have made sense for Beijing to get Pyongyang to surrender its visible plutonium effort—based on Soviet technology and under threat from both the United States and the IAEA—and continue the covert uranium one supplied by China through the Khan network.³³

In any event, as it was becoming clear that Dr. Khan was heading to forced retirement, both the People's Republic of China and the Democratic People's Republic of Korea stepped up their assistance to the Islamic Republic of Iran. What once was mostly indirect became direct as Beijing began transferring materials and equipment straight to Tehran. In November 2003, for instance, the Associated Press reported that the IAEA staff had identified China as one of the probable sources of equipment used in Iran's suspected nuclear weapons program. A Chinese nuclear specialists were working in Iran at least as late as fall 2003, according to Michael Ledeen writing in the Wall Street Journal. In September 2005, the National Council of Resistance of Iran, a dissident group, charged that the Chinese were continuing to trade in centrifuges.

Moreover, that organization, which in 2002 disclosed Iran's heavy-water production facility at Arak and the uranium-enrichment plant in Natanz, also accused China of secretly sending Iran beryllium, the metal used in neutron initiators to trigger nuclear weapons. ³⁷ Due to the secretive nature of the transfers, ³⁸ it is highly unlikely that Iran bought the material for its peaceful uses. The allegation is in line with contemporaneous reports about Iran's covert attempts to source beryllium, an item subject to export controls.

In July 2007, the Wall Street Journal reported that the State Department had lodged formal protests with Beijing about Chinese companies exporting to Iran items that could help its covert weapons effort, in violation of Security Council resolutions.³⁹ Then in March 2011, Malaysian police in Port Klang seized two containers from a ship traveling to Iran from China. Authorities believed that items labeled "goods used for liquid mixing or storage for pharmaceutical or chemical or food industry" were in fact parts for nuclear warheads.⁴⁰

Officials in Asia have regularly confiscated shipments of equipment and materials sold by Chinese state enterprises to Iranian companies in contravention of international treaties and U.N. rules. Chinese entities, for instance, have been implicated in transfers of maraging steel, 41 ringshaped magnets, 42 and valves and vacuum gauges, 43 all apparently for use in Iran's atom bomb effort.

In recent years, Chinese transfers to the Iranian program have seemed to decline. What is the cause for this welcome change? It appears that after the end of the Khan black market ring, Beijing began working through another surrogate. From all indications, China let the North Koreans effectively take over Khan's role to become China's replacement "borrowed knife" after the loss of Pakistan.

Fakhrizadeh, the Iranian nuclear scientist, was spotted in China on his way to North Korea for the regime's third test. 44 Moreover, it is almost certain that Iranians observing the first two detonations flew over and transited in China as well. Beijing officials had to know what the Iranians were doing, so the unimpeded passage of Tehran's scientists and technicians suggests, at a minimum, Chinese assent to this activity.

Of course, the same goes for travel of large numbers of North Koreans in the other direction. North Korean technicians heading to Iran undoubtedly flew through Chinese airspace and transited Chinese airports, most likely Beijing.

Pyongvang also used Chinese airspace to send Iran nuclear materials as well as missiles. In November 2007, Secretary of State Condoleezza Rice wrote to Chinese officials asking for "urgent action" to interdict North Korean missile components in the Beijing airport on their way to Iran. There were, according to the cable, 10 similar shipments passing through Beijing despite American requests to stop them. ⁴⁵ The failure to offer any cooperation to Washington showed, at a minimum, Chinese complicity with North Korean proliferation.

China, unfortunately, may be continuing to use North Korea as a conduit to Iran. The North's newest missile, the KN-08, could be headed there soon, according to arms expert Richard Fisher. Analysts think the Russians are the source of the KN-08, but as Fisher points out, they never built a liquid-fueled, road-mobile ballistic missile. 46 China, however, had such a program, which produced the DF-22. Moreover, China has admitted transferring to the North Koreans six chassis for the KN-08 transporter-erector-launcher, and some think the Chinese sold the rest of the TEL, including the interface with the missile.⁴⁷ If a Chinese enterprise indeed sold the entire TEL, China probably transferred the missile as well. "How else would a North Korean company be able to build a TEL for the KN-08?" Fisher asks. "You need intimate knowledge of the missile in order to build its truck." And if he is right about North Korea exporting to Iran, China would still appear to be in the proliferation business, albeit indirectly.

Finally, given the close relationships between Beijing and Damascus and Beijing and Tehran, it is unlikely that the North could have participated in the Dair Alzour project without China's knowledge and maybe even without Chinese consent.

Despite what Beijing officials were saying, they had been playing "the proliferation card," their most powerful tool for accomplishing their country's most important strategic objectives. In addition to Tehran and Damascus, it is almost certain that Beijing, either directly or through surrogates Pakistan and North Korea, transferred nuclear technology to Riyadh, Cairo, Algiers, and Saddam's Baghdad. ⁴⁹ So as much as we would like to think otherwise, the Chinese were willing to risk nuclear winter to get their way in the world through "managed proliferation." "There is a circle of countries that want nuclear weapons," says Fisher, "and in the center of that circle of evil is China."

Some may object to his value judgments, but Fisher's "center of that circle" characterization is certainly apt. Former U.S. official Joseph DeTrani points out that North Korea and Iran are "proliferation epicenters," but at least up to recent times they were, in reality, only at the fringes of that activity. It was China that was in the middle.

China's centrality meant that North Korean nuclear proliferation, year in and year out, fit Beijing's strategic purposes. So by helping to disperse the bomb, Pyongyang was at the same time tightening the bonds with its main benefactor. Therefore, Kim rulers, by selling technology and components for dangerous weapons, were ensuring the survival of their state in a way far more important than just the earning of large sums from export customers. They were ensuring the support of their most important backer.

Perhaps there was not a formal conspiracy with North Korean henchmen scrupulously implementing the detailed plans of Chinese masterminds, but Pyongyang essentially took over Dr. Khan's customer list and its sales were helping friends of Beijing, thereby furthering Chinese objectives. That made the Kim regime particularly useful to China. And, of course, it meant that the North had a big "green light" to

sell the world's most destructive weaponry to states working with Beijing.

A New "Tilt" for China?

In September 2013, China's Ministry of Commerce issued a 236page list of dual-use and other items that could not be exported to North Korea.⁵² To skeptics the new prohibitions were meaningless. Beijing, the argument went, had voted for all five sets of Security Council sanctions on North Korea since 2006 and had violated them all, in some cases blatantly.

Despite the possibility of residual proliferation—the KN-08 for instance—there are reasons to believe Beijing's atrocious record of compliance either has improved recently or could improve in the near future. Why? The relationship between Beijing and Pyongyang over the first half of 2014 has dramatically changed, at least in some respects. It is possible that the changes could be, as a practical matter, permanent.

At one time, the two people's republics, which share a long border, were close in more than just a physical sense. When Kim Il Sung and Mao Zedong ruled their young states, relations were conducted by two larger-than-life figures speaking the same language, literally and figuratively. As important, they shared interests, goals, and outlooks. Diplomacy was conducted on a leader-to-leader basis, and even though the two grand men did not always see eye-to-eye, they knew how to deal with the other.

Their successors did not share the same bond, however. Kim Jong II, Kim Il Sung's aberrant son, strained relations with his Chinese neighbors throughout his rule, from his father's death in 1994 to his death in 2011. And with the elevation of Kim Jong Un, ties between Beijing and Pyongyang hit new lows—and seem to be getting worse by the month.

Kim Jong Un's assumption of power created turmoil in Pyongyang as he struggled to consolidate a shaky hold on power and as regime elements fought each other. The viciousness of those struggles directly led to the rupture of relations between China and North Korea. December 2013 was a turning point in this regard. That month, young Kim, acting with a ferocity shocking observers, sidelined his uncle Jang Song Thaek in the most final way possible, by swift execution.

Married to Kim's aunt, the ailing Kim Kyong Hui, Jang was often called the second-most influential figure in Pyongyang. He was considered such in part because he and his wife had been chosen by Kim Jong II to serve as regents of sorts to Jong Un, who may have been only 28 when he suddenly became the North's supreme ruler. And while Jang acted as protector of the new leader, he served as China's conduit to Pyongyang's inner circle. Chinese officials, in short, thought they had found a direct pipeline to young Kim.

Beijing's use of Jang for this purpose, which once looked like a masterstroke, ultimately proved to be a mistake. Kim Jong Un, to justify the killing of a family member, had to demonize his uncle. State media, therefore, labeled the 67-year-old regime-insider a "traitor to the nation for all ages," ⁵³ and to justify that tag Kim criminalized his close association with China. In detailing Jang's crimes, the official Korean Central News Agency made two references to the People's Republic of China: his selling of "coal and other precious underground resources at random" and his "selling off the land of the Rason economic and trade zone to a foreign country for a period of five decades." Moreover, the charge of Jang being "bribed by enemies" is probably a reference to the Chinese.

When Jang died—probably by large-caliber rounds and not, as reported, by ravenous canines—China lost its most influential contact in Pyongyang. Kim Jong Un had given uncle Jang Song Thaek nearly free rein to handle relations with the Chinese. Kim, therefore, risked his China ties when he ordered the execution of Jang.

If Kim had stopped his purge with the killing of his uncle, relations with Beijing would have been largely unaffected, but he continued his "reign of terror" and systematically rooted out Jang's large, nationwide patronage network. As Kim did so, he eliminated most of Jang's underlings who had handled China matters. In short, by prolonging the purge Kim ended most contacts with his most important benefactor.

It appears Kim did not set out to cut himself off from China. On the contrary, it looks like he tried to maintain ties by sending China a message after Jang's death. "There will be no change of policy, either inside the country or in its foreign outlook," Kim signaled, in the words of a "New York-based diplomat." 56

And he in fact initially tried to rebuild his lifeline to Beijing. For instance, in the early months of 2014 he sent Kim Ki Sok to the Chinese capital and Shenzhen looking for Chinese money. ⁵⁷ Kim even rehabilitated some Jang's allies because of their China expertise. There are reports he reinstated two such officials, "a sign," in the words of Voice of America, Pyongyang was trying "to repair its economic

relations with its powerful neighbor."58 As a part of this effort, the cloud over Ji Jae Ryong, considered a "linking pin" between Jang and China,⁵⁹ was lifted, apparently because he was needed by the regime in Beijing.

Therefore, at least at first, the break in ties appears a byproduct, and not the goal of Kim's moves. Yet the rebuilding of the China relationship was not a priority for Supreme Commander Kim. After all, in May 2014 he demoted Choe Ryong Hae, then considered to be North Korea's No. 2 official. Choe's removal meant that one more figure with China experience and expertise had left the senior ranks in Pyongyang. Brock University's Charles Burton has called the demotion "another signal that cannot be pleasing" to the Chinese. 60

The Chinese, for their part, seemed to have been genuinely surprised by Jang's purge and execution, 61 a clear indication of how much access and influence they had lost in Pyongyang since Kim Jong Un assumed power. Not surprisingly, Beijing tried to build bridges from its end, for instance, by sending two Foreign Ministry delegations to Pyongyang in the beginning of 2014.⁶²

Yet despite the intensified Chinese diplomacy, the Foreign Ministry delegations were not successful in restoring cordial ties, and since those visits the North has, according to one account, "virtually suspended official exchanges with China."63 Moreover, Pyongyang has reportedly summoned home, for the second time after the execution of Jang Song Thack, all trade officials stationed in the People's Republic. "On the surface, they were recalled for ideological study," a source told Chosun Ilbo, the Seoul newspaper, "but in fact it's a kind of silent protest against China ",64

China was also the object of not-so-subtle gestures. From the spring of 2014 the Korean People's Army has been "ratcheting up denunciations of China, calling it a 'sworn enemy.' "55 That name-calling followed reports from late March 2014 that Kim Jong Un had ordered the Kang Kon Military Academy, a training ground for the country's top officers, to hang signs with a quote from his grandfather that China is a "turncoat and our enemy." 66 The signs were also put up at training schools for Workers' Party officials. It is not clear what caused Kim to order the posting of the signs—the Chosun Ilbo reported he was angered by Beijing voting for U.N. sanctions in 2013—but the sentiment was unmistakable. And so was the idea behind the North Korean military using images of pandas, a symbol of China, for target practice.⁶⁷

Donald Kirk, a veteran North Korea watcher, has written that much of the factional strife in Pyongyang occurs without affecting the regime's relations with Beijing. That assessment, which was once correct, has now become less so. The downward momentum in ties has become more evident in recent months as infighting in Pyongyang has seemed to intensify. China, for example, cut off oil flowing to the North this year. The stoppage, which lasted virtually the entire first half of 2014, seems to have degraded the operations of the North Korean military. Moreover, North Korean grain imports from China during the first half of that year fell by more than half, another sign of deteriorating relations. Despite the severe effect of these actions, Kim John Un has shown no signs of buckling.

And now Xi Jinping, China's newish ruler, has added even more fuel to the fire with his July 2014 trip to Seoul. For the first time, a Chinese leader had visited the South Korean capital before traveling to the North. Observers correctly saw a snub, a "cold shoulder" as the New York Times put it. John Delury of Seoul's Yonsei University explained the significance of the summit this way: "The message is that if North Korea continues to keep Beijing at a distance and not work harder to make China happy, then China will tilt towards South Korea."

The "tilt" had already occurred, however. Xi Jinping had hosted South Korea's president, Park Geun-hye, in Beijing in June 2013, and even a year later Xi had not extended an invitation to Kim Jong Un to visit his capital. ⁷³

But how far is China tilting? Chinese Foreign Ministry spokesman Qin Gang at the time said that no one should "over-read" Xi's visit to Seoul. The Similarly, famed Korea watcher Andrei Lankov notes that "the mood in Beijing has changed to a certain extent, but such changes have thus far produced little impact on actual policy—and are not likely to, at least for the time being." He sees the Chinese, for their own reasons, continuing to provide their North Korean counterparts "a modicum of support." The most they will do to show displeasure is "to take some mild countermeasures aimed at curtailing the speed of nuclear weapons development in the North."

Lankov may be correct that there may be no meaningful changes in the next few months, yet in the longer term China-North Korea relations will have to change, if for no other reason than leaders on both sides of the border are no respecters of the status quo. Xi Jinping, who believes in China's right to dominate its region, has little apparent tolerance for an obviously defiant Kim Jong Un. Kim, for his part, is swiftly downgrading China and finding other backers, most notably China's adversary Japan⁷⁶—a move bound to outrage Xi—as well as Russia, a peer competitor to China.⁷⁷ Kim Jong Un, using the playbook developed by his grandfather and perfected by his father, is always trying to disrupt the existing order in North Asia, and a North Korea with Tokyo and Moscow at its side changes many equations in North Asia.

Everybody seems to be making new friends in that troubled region. Chinese academics for years have been talking about their country switching sides on the Korean peninsula, and now such a shift looks like it is beginning to take place. The tilt toward South Korea—not to mention the serious deterioration of ties between Beijing and Pyongyang—will undoubtedly have long-term implications for Chinese support for North Korean proliferation. South Korea, Beijing's new friend, is absolutely opposed to the North Korean nuclear weapons and ballistic missile programs, as is Seoul's main backer and treaty ally, the United States. Both Seoul and Washington have for years been trying to move China towards compliance with its obligation to enforce Security Council sanctions.

The fact that Beijing has obviously been leaning hard on the North Koreans in recent months raises the possibility that Chinese officials are also making an effort to enforce international sanctions as well as their domestic export prohibitions, such as the newly-issued 236-page list. If the Chinese are making such an effort—and we might not know whether they are for some time—continued proliferation could become risky for the Kim regime.

In short, the "mild countermeasures" Lankov talks about might end up affecting North Korea's arms sales. Slowing the North's proliferation. after all, would send a message to Kim Jong Un without seriously undermining the stability of his regime. Pyongyang might no longer find protection and support—or at least the same level of such—for its proliferant ways from Chinese leaders. And if North Korea loses such support, its officials will then have to weigh the benefits of proliferation against its risks, something they have not had to do when China backed the North's arms exports.

A Mission Impossible?

Policymakers in the administration of George W. Bush assumed China would eventually realize that it was in its interest to disarm"denuclearize"—the Kim regime and that the Chinese had the power to do so. Because Beijing has not in fact persuaded the North to give up its arsenal, many have assumed China chose not to use its considerable clout.

Similarly, American efforts to stop North Korean weapons sales have, apart from interdiction on the high seas and at international airports, focused on China, getting Beijing to prevent shipments from crossing Chinese territory. The end goal was to persuade Chinese officials to lean on their North Korean counterparts.

The recent breakdown in relations between Beijing and Pyongyang, however, raises the possibility that China, whatever its leaders may once have thought about denuclearization and proliferation, now does not have the ability to influence North Korea in this regard. Tellingly, Beijing's ambassador to the U.S. in early April 2014 expressed irritation over Washington hectoring his country about its North Korean ally. "You are giving us a mission impossible," Cui Tiankai said to an audience in the American capital then.⁷⁸

At first glance, Ambassador Cui's protest seems disingenuous because large and prosperous China would appear to have the power to boss around small and destitute North Korea, especially when it comes to issues relating to arms sales. For one thing, the North Koreans do not take in nearly as much from weapons customers as they receive from their Chinese compatriots.

North Korea's proceeds from proliferation, even if they exceed the \$3 billion estimates, are not nearly as big as the total of subsidies and grants from China's central government, the proceeds of trade with Chinese parties, and amounts invested in North Korea by China. There are no good estimates of Beijing's total subsidies and grants, but it is apparent that the North Korean economy is becoming increasingly reliant on China's cash, especially in the form of the proceeds of trade and investment.

Largely as a result of mineral purchases, trade between China and North Korea jumped 10.4% in 2013, reaching a record \$6.5 billion. That increase meant that the People's Republic, historically the North's largest trading partner, substantially increased its share of trade in 2013, to almost 90% from 68.4% the year before. And as goes trade, so goes investment. There are few reliable figures quantifying inward capital flows in recent years, but China appears to have kept its role as the main source of investment cash. Expression of the people of the people

It is apparent that Chinese investment and trade are large in relation

to the North Korean economy. According to the Bank of Korea, the North's gross domestic product in 2013 amounted to KRW 30.84 trillion, about \$29.3 billion. 83 China's support obviously makes the difference between growth and contraction for the North. The North's economy is now finely balanced, expanding just 0.8% in 2011, 1.3% in 2012, and 1.1% in 2013.84 Take away Chinese cash, and the DPRK goes from anemic growth back to contraction, suddenly.

But China's raw economic power does not necessarily translate into influence in Pyongyang. Paradoxically, as Chinese money has become more important to the North Korean economy, Beijing's ability to sway the Kim regime has noticeably declined.

There are several reasons for this unusual phenomenon. Chinese authorities, for example, do not control much of the trade and investment cash flowing to the North, something the North Koreans undoubtedly have figured out by now. In addition, Washington is bypassing China in its dealings with Pyongyang, rising Korean nationalism is diminishing foreigners' influence, and Pyongyang is beginning to play the Russia and Japan cards against China. Moreover, pro-North Korea elements, especially the flag officers of the People's Liberation Army, still strongly influence policy in Beijing, so Kim Jong Un surely knows he has wide latitude to defy China's civilian policymakers.⁸⁵

Yet there is an even broader concern. The turmoil in Pyongyang appears to be getting worse. Beginning with the purge of Jang, the regime publicly admitted to internal discord, something it had not done since the days of Kim Il Sung. Since Jang's downfall, the turbulence inside the ruling group seems to have continued. At the end of February 2014, for example, the official Korean Central News Agency carried Kim Jong Un's comments on factional infighting. 86 The Kim family has built its power on the notion that it has the love, support, and devotion of all the people of the Democratic People's Republic of Korea, so talking about severe disagreements means the divisions among elite elements must be serious. As Korea watcher Bruce Bechtol stated in February 2014, "Things are as tenuous as I have ever seen them." There have been so many demotions, promotions, and executions that in March 2014 an unnamed South Korean official compared Kim Jong Un to a driver of a car with no brakes.⁸⁸

In brakeless North Korea, it appears the Korean People's Army is regaining political power. When Kim Jong Un succeeded his father in December 2011, he appeared to favor the Workers' Party over the army, perhaps because Jang was then able to exercise outsized influence. Jang, as regent to Kim, looks like he overreached, and now the top brass appear to be as powerful as they were under Kim's father, who made the army his power base with his Songun—"military first"—policy. In fact, some military officers feel so secure that they are openly objecting to Kim's policies or even ignoring his orders, at least according to some reports. ⁸⁹ If flag officers are indeed that influential, then the chances of continued proliferation are high as they control the North's weapons programs.

Finally, other factors undermine the ability of Chinese leaders to apply leverage over their North Korean counterparts. China's leadership, for one thing, is preoccupied by domestic challenges, such as a quickly slowing economy and discord in the Communist Party as Xi Jinping conducts what is tantamount to a nationwide purge of opponents and potential opponents. On the foreign front, Beijing is creating border disputes with an arc of countries, from India in the south to South Korea in the north, as well as challenging the principle of freedom of navigation, thereby taking on the United States.

Chinese leaders, therefore, have their hands full. That means, among other things, that busy Beijing policymakers probably do not have that much time to devote to controlling the seemingly impossible-to-budge North Koreans. If so, Kim Jong Un may think he has a free hand to continue proliferating. And he might also believe his new friends in Tokyo and Moscow reduce his dependence on China, thereby giving him latitude to ignore Chinese wishes on proliferation as on other matters. Kim Il Sung was a master of playing off one backer against another, and young Kim is now developing counterweights to his friends in Beijing.

There is a very real possibility that China no longer wants the North Koreans to engage in proliferation—the world's most deadly trade—but now has little ability to stop it. As former American diplomat Stapleton Royhas said, "No one has found a way to persuade North Korea to move in sensible directions." ⁹⁰

Today, China, the country that once had the most power over the Democratic People's Republic of Korea, may now have the least influence there. If so, the Kim regime may believe that, going forward, it can trade in nuclear weapons and ballistic missiles with impunity.

In these circumstances, the outlook is more North Korean proliferation in coming years, not less.

Notes:

¹ For more information on Pyongyang's illegal trading activities, see Sheena Chestnut Greitens, "Illicit: North Korea's Evolving Operations to Earn Hard Currency," Committee for Human Rights in North Korea, April 2014. http://www.hrnk.org/uploads/pdfs/SCG-FINAL-FINAL%281%29.pdf.

² See United Nations Security Council, "Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)," November 5, 2010, http://www.un.org/ga/search/view doc.asp?symbol=S/2010/571. These estimates appear to include sums from sales of weapons other than those that are the focus of this paper, but the bulk of the proceeds from proliferation appear to come from nuclear weapons and ballistic missiles.

³ United Nations Security Council, "Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)," June 11, 2013, note 63. http://www.un. org/ga/search/view doc.asp?symbol=S/2013/337.

⁴ Larry A. Niksch, "When North Korea Mounts Nuclear Warheads on Its Missiles," Journal of East Asian Affairs, Fall/Winter 2011, p. 1. http://www.inss.re.kr/app/board/view.act?metaCode=en m pub&boardId=0157 2434e8beda575d8c38bd&pkey=1.

⁵ See Bruce E. Bechtol, Jr., e-mail message to author, July 24, 2014. For more information, see Bruce E. Bechtol, Jr. "Military Proliferation in the Kim Jong-un Era: The Impact on Human Rights in North Korea" (paper presented at the annual conference of the International Council on Korean Studies in Washington, D. C. on April 17, 2014).

⁶ Bruce E. Bechtol, Jr. "Military Proliferation in the Kim Jong-un Era: The Impact on Human Rights in North Korea."

⁷ See Catherine Boye, 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-matchnuclear-proliferation.

⁸ See Bertil Lintner, "Is the Burma-North Korea Relationship a Thing of the Past?" NK News, September 23, 2013. https://www.nknews.org/2013/09/is-theburma-north-korea-relationship-a-thing-of-the-past/.

⁹ See Julian Ryall, "Israel Urged to Discuss Nuclear Iran in Beijing," South China Morning Post (Hong Kong), May 3, 2013. http://www.scmp.com/news/ asia/article/1228723/urge-netanyahu-pressure-china-iran-japanese-rightsactivist-tells-knesset; and Uzi Mahnaimi, Michael Sheridan, and Shota Usiho, "Iran Steps Deep into Kim's Nuclear Huddle," Sunday Times (London), February 17, 2013,

http://www.thesundaytimes.co.uk/sto/news/world_news/Middle_East/article121 5608.ece.

- ¹⁰ See Yaakov Lappin, "Analysis: Pyongyang Nuke Test May Also Be Iranian," *Jerusalem Post*, February 13, 2013. http://www.jpost.com/Features/In-Thespotlight/Analysis-Pyongyang-nuke-test-may-also-be-Iranian.
- ¹¹ In 2004, North Korea sold to Iran weapons-grade uranium, which spilled on the tarmac of the then new Tehran airport. *See* Con Coughlin, "Iran 'Covered Up Nuclear Spill,'" *Telegraph* (London), June 27, 2004. http://www.telegraph.co.uk/news/worldnews/middleeast/iran/1465602/Iran-covered-up-nuclear-spill.html.
- ¹² See, e.g., Henry Sokolski, "Nonproliferation Hinges on North Korea," *Wall Street Journal*, August 18, 2003. http://online.wsj.com/news/articles/SB106115823142932900.
- ¹³ *See* Jang Yong-seung and Ahn Jeong-hoon, "Meir Dagan: N. Korea Is Already Nuclear Power," MK Business News, October 15, 2013. http://news.mk.co.kr/english/newsRead.php?rss=Y&sc=30800011&year=2013&no=986632.
- ¹⁴ See "'Hundreds of N. Koreans' Working at Iran Nuke Facilities," Chosun Ilbo (Seoul), November 14, 2011. http://english.chosun.com/site/data/html_dir/2011/11/14/2011111400526.html. Michael Ledeen also reported the presence of North Koreans at Iranian nuclear facilities. See Michael Ledeen, "The Meaning of Iranian Inspections," Wall Street Journal, December 19, 2003, http://online.wsj.com/.
- ¹⁵ See, e.g., Henry Sokolski, "Nonproliferation Hinges on North Korea."
- ¹⁶ See Tak Kumakura, "North Koreans May Have Died in Israel Attack on Syria, NHK Says," Bloomberg News, April 27, 2008. http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aErPTWRFZpJI.
- ¹⁷ See Barbara Demick, "N. Korea-Iran Ties Seem to Be Growing Stronger," Los Angeles Times, July 27, 2006. http://articles.latimes.com/2006/jul/27/world/fgmissile27.

- ¹⁹ Christopher Hill later retracted his confirmation of the Iranian attendance at the missile tests. *See* "US: Can't Confirm Iranians Witnessed North Korea Launch," Dow Jones Newswires, July 21, 2006. http://online.wsj.com/.
- ²⁰ See Evan Ramstad, "Korean Launch Could Spur Arms Sales," Wall Street Journal, March 31, 2009. http://online.wsj.com/news/articles/SB123843944

¹⁸ Ibid.

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- ²¹ See Donald Kirk, "Why Iranian Engineers Attended North Korea's Failed Rocket Launch," Christian Science Monitor, April 18, 2012. http://www. csmonitor.com/World/Asia-Pacific/2012/0418/Why-Iranian-engineers-attended-North-Korea-s-failed-rocket-launch.
- ²² See Hidevuki Sano, "Iran Stations Defense Staff at North Korea Military Site: Kyodo," Reuters, December 2, 2012. http://www.reuters.com/article/2012/ 12/02/us-korea-north-iran-idUSBRE8B101720121202.
- ²³ See "U.S. Intel: Iran Financing North Korean ICBMs in Exchange for Technology, Components," World Tribune, December 4, 2013. http://www.worldtribune.com/2013/12/04/u-s-intel-iran-financing-north-koreanicbms-in-exchange-for-technology-components/.
- ²⁴ See Hideyuki Sano, "Iran Stations Defense Staff at North Korea Military Site: Kyodo."
- ²⁵ See "Claims of Iran-North Korea Missile Cooperation Are Speculation: Defense Minister," *Tehran Times*, December 24, 2012. http://www.tehrantimes. com/politics/104364-claims-of-iran-north-korea-missile-cooperation-arespeculation-defense-minister.
- ²⁶ For an analysis of the implications of the agreement, see John S. Park, "The Leap in North Korea's Ballistic Missile Program: The Iran Factor," NBR Analysis Brief, December 19, 2012. http://www.nbr.org/publications/analysis/ pdf/Brief/121812_Park_NKoreaMissile.pdf.
- ²⁷ See Barbara Demick, "N. Korea-Iran Ties Seem to Be Growing Stronger."
- ²⁸ See Paul Kerr, "Iran, North Korea Deepen Missile Cooperation," Arms Control Today, January/February 2007. http://www.armscontrol.org/act/ 2007_01-02/IranNK.
- ²⁹ See "U.S. Intel: Iran Financing North Korean ICBMs in Exchange for Technology, Components."
- ³⁰ Richard D. Fisher, Jr., e-mail message to author, July 21, 2014.
- ³¹ Tim Weiner, "Nuclear Anxiety: The History; Nuclear Programs Built on Deceit and Fear," New York Times, May 17, 1998. http://www.nytimes.com/ 1998/05/17/world/nuclear-anxiety-the-history-nuclear-programs-built-on-deceitand-fear.html.
- ³² For a discussion of Chinese proliferation and Beijing's support for the Khan ring, see Gordon G. Chang, Nuclear Showdown: North Korea Takes On the World (New York: Random House, 2006), pp. 124-30.

³³ There is circumstantial evidence supporting this conclusion. China, for instance, reportedly ordered the North Koreans to retract their October 2002 confession to U.S. Assistant Secretary of State James Kelly of the existence of the uranium program. John Loftus, telephone interview by author, February 18, 2004. Moreover, China steadfastly—and mystifyingly—supported North Korean denials of the program's existence. President Jiang Zemin, for instance, told President George W. Bush at his Crawford ranch in October 2002 that China was "completely in the dark" about the North's uranium effort. *See* White House Office of the Press Secretary, "President Bush, Chinese President Jiang Zemin Discuss Iraq, N. Korea," October 25, 2002. http://georgewbush-whitehouse.archives.gov/news/releases/2002/10/20021025.html. Beijing publicly maintained that position until Pyongyang showed off its centrifuges. The astounding denial was, as John Loftus notes, "a real signal of partnership."

³⁴ See George Jahn, "U.N. Lists Likely Nuclear Donors to Iran," Associated Press, November 20, 2003. http://www.ap.org/.

³⁵ See Michael Ledeen, "The Meaning of Iranian Inspections."

³⁶ See "Iranian Opposition Group Says Iran Building Centrifuges to Extract," Associated Press, September 13, 2005. http://www.ncr-iran.org/en/news/nuclear/366-iranian-opposition-group-says-iran-building-centrifuges-to-extract.

³⁷ See "Iran-Nuclear: Smuggling of Beryllium to Iran," National Council of Resistance of Iran," November 19, 2005. http://www.ncr-iran.org/en/news/nuclear/564-iran-nuclear-smuggling-of-beryllium-to-iran. For background on this matter, see Francois Murphy, "Iran Got Metal from China Usable in Atom Bomb—Exiles," Reuters, September 1, 2005, http://www.reuters.com/.

³⁸ See John Loftus, interview by Eric Shawn, Fox Files, Fox News Live Weekend, Fox News Channel, December 5, 2004.

³⁹ See Neil King Jr., "China-Iran Trade Surge Vexes U.S.," *Wall Street Journal*, July 27, 2007. http://online.wsj.com/news/articles/SB118547206362379113? mod=home_whats_news_asia&mg=reno64-wsj.

⁴⁰ *See* "Malaysia: Ship with Illegal Cargo Was Iran-Bound," Associated Press, March 18, 2011. http://www.washingtonpost.com/wp-dyn/content/article/2011/03/18/AR2011031800604.html.

⁴¹ See Joby Warrick, "Nuclear Ruse: Posing as Toymaker, Chinese Merchant Allegedly Sought U.S. Technology for Iran," *Washington Post*, August 11, 2012. http://www.washingtonpost.com/world/national-security/nuclear-ruse-posing-as-toymaker-chinese-merchant-allegedly-sought-us-technology-for-iran/2012/08/11/f1c66d9a-e265-11e1-ae7f-d2a13e249eb2_story.html.

⁴² See "Iran Sought Nuclear Parts in China: Report," AFP, February 15, 2013. https://sg.news.yahoo.com/iran-sought-nuclear-parts-china-report-210213336.html.

⁴³ See Peter Fritsch and David Crawford, "Iran Nuclear Ring Probed," Wall Street Journal, April 3, 2010. http://online.wsj.com/news/articles/SB10001 424052702303450704575160242131138472?mg=reno64-wsj.

⁴⁴ See Julian Ryall, "Israel Urged to Discuss Nuclear Iran in Beijing"; and Uzi Mahnaimi, Michael Sheridan, and Shota Ushio, "Iran Steps Deep into Kim's Nuclear Huddle."

⁴⁵ See Jeremy Page and Jay Solomon, "China Stood Aside on Iran," Wall Street Journal, November 29, 2010. http://online.wsj.com/news/articles/SB10001424 052748704584804575644031813953758?mg=reno64-wsj.

⁴⁶ See Richard D. Fisher, Jr., e-mail message to author, July 21, 2014.

⁴⁷ Not everyone agrees China sold the entire TEL. *See*, *e.g.*, "North Korea May Be Able to Build Own Missile Launchers: Experts," Intelligence Quarterly, February 3, 2014. http://www.intelligencequarterly.com/2014/02/north-koreamay-be-able-to-build-own-missile-launchers-experts/.

⁴⁸ Richard D. Fisher, Jr., e-mail message to author, July 21, 2014.

⁴⁹ According to various analysts, Saudi money financed much of this activity. *See*, *e.g.*, Thomas Woodrow, "The Sino-Saudi Connection," China Brief, October 24, 2002. http://www.jamestown.org/programs/chinabrief/single/?tx_ttnews[tt_news]=3532&tx_ttnews[backPid]=192&no_cache=1#.U95hV6PF-ho. Incidentally, China sold nuclear-capable missiles to Saudi Arabia in the 1980s, and the sale raises the troubling possibility that Beijing and Riyadh were also contemplating the sale of warheads for those missiles. For additional information, see Richard L. Russell, "A Saudi Nuclear Option?" *Survival*, Summer 2001, p. 69.

⁵⁰ Richard D. Fisher, Jr., telephone interview by author, September 18, 2003.

⁵¹ Joseph R. DeTrani, "Iran, North Korea as Proliferation Epicenters," Asia Times Online, June 3, 2014. http://www.atimes.com/atimes/World/WOR-02-030614.html.

⁵² See Megha Rajagopalan, "China Says Banned Exports to North Korea Not Meant as Punishment," Reuters, September 24, 2013. http://www.reuters.com/article/2013/09/24/us-china-north-korea-sanctions-idUSBRE98N0DA20130924. ⁵³ "Traitor Jang Song Thaek Executed," Korean Central News Agency, December 13, 2013. http://www.kcna.co.jp/item/2013/201312/news13/2013 1213-05ee.html.

^{54 &}quot;Traitor Jang Song Thaek Executed," Korean Central News Agency.

⁵⁵ "N. Korea Calls for Apology from S. Korea for 'Slander,'" Yonhap News Agency, March 14, 2014. http://english.yonhapnews.co.kr/northkorea/2014/03/14/36/0401000000AEN20140314007200315F.html.

⁵⁶ Benny Avni, "North Korea Is Losing China, Does It Have a Friend in Russia?" *Newsweek*, May 13, 2014. http://www.newsweek.com/2014/05/23/north-korea-losing-china-does-it-have-friend-russia-250849.html.

⁵⁷ See "N. Korean Official Secretly Courts Chinese Investments," Chosun Ilbo (Seoul), February 26, 2014. http://english.chosun.com/site/data/html_dir/2014/02/26/2014022601787.html.

⁵⁸ Shannon Van Sant, "Report: North Korean Official Made Secret Trips to China," Voice of America, February 27, 2014. http://www.voanews.com/content/secret-trips-reported-by-north-korea-to-china/1860373.html.

⁵⁹ "N. Korean Envoy Attended Ceremony of China's Legislature Session," Yonhap News Agency, March 4, 2014. http://english.yonhapnews.co.kr/northkorea/2014/03/04/14/0401000000AEN20140304007800315F.html.

⁶⁰ Charles Burton, interview by John Batchelor and Gordon Chang, *The John Batchelor Show*, Cumulus Media Networks, May 14, 2014. http://johnbatchelorshow.com/podcasts/2014/05/14/second-hour.

⁶¹ See Jane Perlez and Choe Sang-hun, "Public Ouster in North Korea Unsettles China," New York Times, December 9, 2013. http://www.nytimes.com/2013/12/10/world/asia/a-gamble-for-north-korea-leader-kim-jong-un.html?pagewanted=2&pagewanted=all.

⁶² Deputy Director-General of Asian Affairs Xing Haiming traveled there late January, and his delegation was followed in February by one headed by Deputy Foreign Minister Liu Zhenmin, who spent four days in the North. It is unusual that the two Chinese missions were separated by only weeks. *See* Sarah Kim, "China's Liu Emphasizes 6-Party Talks' Significance," *JoongAng Daily* (Seoul), February 22, 2014. http://koreajoongangdaily.joins.com/news/article/Article. aspx?aid=2985330; and "China Confirms Its Diplomats Made First Visit to N. Korea Since Purge," Yonhap News Agency, February 12, 2014, http://english.yonhapnews.co.kr/national/2014/02/12/36/0301000000AEN2014021200720031 5F.html.

⁶³ "N. Korea Miffed at Xi's Visit to S. Korea," *Chosun Ilbo* (Seoul), July 2, 2014. http://english.chosun.com/site/data/html_dir/2014/07/02/2014070201623. html.

⁶⁴ Ibid.

65 Ibid.

- 66 "N. Korean Military Warned Not to Trust China," Chosun Ilbo (Seoul), March 24, 2014. http://english.chosun.com/site/data/html dir/2014/03/24/2014032 401520.html.
- ⁶⁷ See "N. Korean Army Uses Pandas as Shooting Targets," Chosun Ilbo (Seoul), July 4, 2014. http://english.chosun.com/site/data/html dir/2014/07/ 04/2014070401576.html.
- ⁶⁸ See Donald Kirk, "Mad, Bad North Korea May Just Be an Act," South China Morning Post (Hong Kong), March 17, 2014. http://www.scmp.com/comment/ insight-opinion/article/1450116/mad-bad-north-korea-may-just-be-act?page=all.
- ⁶⁹ See "Chinese Oil Embargo Paralyzes N. Korean Army," Chosun Ilbo (Seoul), July 2, 2014. http://english.chosun.com/site/data/html dir/2014/07/02/2014070 201995.html.
- ⁷⁰ See "N. Korea's Grain Imports from China Halve in H1," Yonhap News Agency, July 30, 2014. http://english.yonhapnews.co.kr/northkorea/2014/07/30/ 89/0401000000AEN20140730005300315F.html. There are other possible explanations for the drop in grain shipments as Yonhap reports. Some, for instance, suggest that the falloff is either the result of a good harvest or an attempt by Pyongyang to lessen its dependence on China.
- ⁷¹ Jane Perlez, "Chinese President's Visit to South Korea Is Seen as Way to Weaken U.S. Alliances," New York Times, July 2, 2014. http://www.nytimes. com/2014/07/03/world/asia/chinas-president-to-visit-south-korea.html? r=0.
- ⁷² Teddy Ng, "Xi Jinping Sends Pyongyang a Message by Making First Korea Trip as President to Seoul," South China Morning Post (Hong Kong), July 2, 2014. http://www.scmp.com/news/china/article/1544521/xi-jinping-sendspyongyang-message-making-first-korea-trip-president.
- ⁷³ See Jane Perlez, "Chinese President's Visit to South Korea Is Seen as Way to Weaken U.S. Alliances."
- ⁷⁴ Foster Klug, "Chinese Leader's Seoul Visit Snubs North Korea," Associated Press, July 3, 2014. http://bigstory.ap.org/article/seoul-visit-china-leader-sendsmessage-north.
- ⁷⁵ Andrei Lankov, "How China's View of North Korea Is Changing," NK News, July 24, 2014. http://www.nknews.org/2014/07/how-chinas-view-of-northkorea-is-changing/.
- ⁷⁶ Japanese and North Korean officials met in Beijing on July 1, 2014 to discuss various issues. See "Japan, N. Korea Hold Talks Despite Missile Launch,"

Associated Press, July 1, 2014. http://bigstory.ap.org/article/japan-n-korea-hold-talks-despite-missile-launch.

⁷⁷ Vladimir Putin in May 2014 ratified the write off of about 90% of about \$10 billion in Cold War-era debt, and the Kremlin is expanding dealings with Pyongyang, in particular planning a gas pipeline running the length of the country into South Korea and an extension of the Trans-Siberian Railroad to Rason. A high-profile Russian delegation, headed by Deputy Prime Minister Yuri Trutnev, visited Pyongyang for three days at the end of April 2014 and signed an economic cooperation agreement with the North. "It seems like North Korea is diversifying its strategy for economic development by moving away from an overdependence on China and toward great cooperation with Russia, which also puts pressure on its neighbor," said Cho Bong-hyun of IBK Economic Research Institute in Seoul. Connie Kim, "North Korea-Russia Ties Improve as North Korea-China Ties Deteriorate," Arirang News, May 4, 2014. http://www.arirang.co.kr/news/News_View.asp?nseq=161892. As analysts have noted, North Korea now seems to be closer to Russia than it has been in at least a decade.

⁷⁸ Ashish Kumar Sen, "Obama Admin Unfairly Pitting China Against North Korea: Diplomat," *Washington Times*, April 10, 2014. http://www.washingtontimes.com/news/2014/apr/10/obama-pitting-china-against-n-korea-diplomat/.

⁷⁹ North Korea's exports to China soared 17.2% in 2013, and imports from that country increased 5.4%. *See* "Trade Between N. Korea, China Hits Record \$6.45 Bln in 2013," Yonhap News Agency, February 1, 2014. http://english.yon hapnews.co.kr/northkorea/2014/02/01/4/0401000000AEN20140201000800315F.html.

⁸⁰ See Christine Kim, "UPDATE 1-N.Korea's Economy Creeps Ahead in Black Thanks to China Trade," Reuters, June 27, 2014. http://www.reuters.com/article/2014/06/27/northkorea-economy-idUSL4N0P81EN20140627. China's North Korean trade is probably understated because much of that commerce is conducted by Chinese day-trippers, who cross into the DPRK with goods for sale. See, e.g., Robert Potter, "The Perils of Investing in North Korea," Diplomat, February 11, 2014. http://thediplomat.com/2014/02/the-perils-of-investing-in-north-korea/. On the other hand, unreported imports of oil from Iran affect the North's trade figures in ways that cannot be quantified, at least at this time. Tehran denies such trade. See "Iran 'Strongly Denies' Reports of Crude Oil Exports to North Korea," Tehran Times, May 11, 2014. http://www.tehrantimes.com/economy-and-business/115670-iran-strongly-denies-reports-of-crude-oil-exports-to-north-korea.

⁸¹ See Audrey Yoo, "Nearly 90pc of North Korea's Overseas Trade with China, Says Report," South China Morning Post (Hong Kong), September 4, 2013.

http://www.scmp.com/news/asia/article/1303171/nearly-90pc-north-koreasoverseas-trade-china-says-report. One reason for the large jump in China's share of North Korea's trade is that commerce with South Korea, the North's other large trading partner, plummeted when Pyongyang closed the Kaesong Industrial Complex for five months to show its displeasure. As a result of the long interruption in production, inter-Korean trade dropped 42.4% in 2013, to \$1.1 billion from \$2.0 billion the year before. Bank of Korea, "Gross Domestic Product Estimates for North Korea in 2013," June 28, 2014. http://www.bok. or.kr/contents/total/eng/boardView.action?menuNaviId=634&boardBean.brdid= 14033&boardBean.menuid=634&boardBean.rnum=2. For a similar estimate of inter-Korean trade from the Korea International Trade Association, see "Inter-Korean Trade Hits 8-Year Low in 2013," Yonhap News Agency, February 23, 2014. http://english.yonhapnews.co.kr/northkorea/2014/02/23/21/0401000000 AEN20140223001700315F.html.

⁸² In 2012, the amount of foreign direct investment into the DPRK increased 41% from the year before, hitting \$79 million, according to the United Nations Conference on Trade and Development. The U.N. agency concluded that most of this money came from China. See "Foreign Direct Investment in N. Korea Gains for 3rd Year," Yonhap News Agency, July 4, 2013. http://english.yonhap news.co.kr/news/2013/07/04/12/0200000000AEN20130704002400315F.HTML. Reports of investments by private Chinese parties suggest much larger capital flows into the DPRK. See, e.g., Kristine Kwok, "Chinese Businessmen Seek Profitable Opportunities in North Korea," South China Morning Post (Hong Kong), November 18, 2013. http://www.scmp.com/business/commodities/ article/1358724/chinese-businessmen-seek-profitable-opportunities-north-korea.

⁸³ Bank of Korea, "Gross Domestic Product Estimates for North Korea in 2013."

⁸⁴ Ibid.

⁸⁵ For a fuller discussion of China's recent loss of influence in Pyongyang, see Gordon G. Chang, "Be Afraid: China Can't Control North Korea," National Interest, April 25, 2014. http://nationalinterest.org/feature/be-afraid-china-cantcontrol-north-korea-10310.

⁸⁶ See "N. Korea Warns Against Factionalism in Ruling Party," Yonhap News Agency, February 26, 2014. http://english.yonhapnews.co.kr/northkorea/2014/ 02/26/73/0401000000AEN20140226002100315F.html.

⁸⁷ Bruce Bechtol, interview by John Batchelor and Gordon Chang, *The John* Batchelor Show, Cumulus Media Networks, February 26, 2014. http://johnbatchelorshow.com/podcasts/2014/02/26/second-hour. Bechtol also notes this: "The most easily discernable sign of weakness in the power structure, or an inability to fully control a government, is purges—and in North Korea

there have been plenty of them." Bruce E. Bechtol, Jr., *North Korea and Regional Security in the Kim Jong-un Era: A New International Security Dilemma* (New York: Palgrave Macmillan, 2014), p. 118.

⁸⁸ See "N. Korea Calls for Apology from S. Korea for 'Slander.'"

⁸⁹ See, e.g., "N. Korean Elite 'Getting Restive," Chosun Ilbo (Seoul), July 26, 2014. http://english.chosun.com/site/data/html_dir/2014/07/26/20140726003 80.html.

⁹⁰ J. Stapleton Roy, interview by author, New York City, February 25, 2004.