

North Korea's New Cash Crop

In late April 2003, during trilateral talks in Beijing, a member of North Korea's delegation pulled aside U.S. assistant secretary of state for East Asian and Pacific affairs James A. Kelly and told him that North Korea "[had] nuclear weapons, [would] not dismantle them, and might transfer or demonstrate them."¹ Past experience dealing with North Korean negotiators has made many within the international community skeptical about such threats. North Korea has a long and colorful history of brinkmanship, using incendiary rhetoric often aimed at its target's deepest fears to improve Pyongyang's leverage. Prior to the Beijing talks, Kelly had publicly noted the possibility that North Korea might transfer nuclear material or even complete weapons.² Pyongyang's claim could have been merely a scare tactic, an attempt to capitalize on these dark suspicions to compel the United States to make concessions in the talks. Yet, in the wake of the September 11 attacks, this bold threat took on a particularly chilling aspect for the U.S. delegation. What if North Korea were to sell a nuclear weapon to Al Qaeda?

Regardless of North Korea's history of drastic threats, the possibility that North Korea might sell fissile material or even completed weapons cannot be ignored. The continuing deterioration of North Korea's economy and the concomitant pressures on the Kim Jong-il regime might force Pyongyang to sell the fruits of its nuclear program. Besides nonstate actors such as Al Qaeda, a number of states might become customers for Pyongyang's nuclear produce.

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Regime Security and the Economy

There are three broad potential threats to Kim Jong-il's or any other dictator's rule: Pyongyang could be attacked from the outside and overthrown by superior foreign military forces; elites from within Kim's own regime could attempt to depose or assassinate him; or the North Korean people might launch a revolt against their own government. Kim's predecessor and father, Kim Il-sung, implemented safeguards against all three threats—invasion, coup, and revolution—during his rule from 1948 to 1994. In addition to his alliances with the Soviet Union and China, Kim Il-sung initiated ballistic missile and nuclear weapons programs to deter invasion by the regime's foreign enemies, including South Korea, the United States, and Japan. He also established tight control over North Korea's military and internal security services, carefully selecting officials on the basis of their loyalty and obedience, while ruthlessly disposing of those who disagreed with his policies or attempted to assert their independence. Kim Il-sung maintained the allegiance of his chosen elites by showering them with material comforts obtained through North Korea's lucrative trade with the Soviet Union, China, and other Communist countries. Finally, Kim Il-sung imposed what is commonly thought to be the most oppressive system of social control ever devised. He maintained a tight grip over the information available to his citizens, denying them the ability to compare their predicament realistically to the outside world, especially to the standard of living enjoyed by their brethren to the south.³

Although Kim Il-sung's son has faced the same threats for the last decade, Kim Jong-il's ability to suppress them has waned. After the collapse of the Soviet Union and the onset of China's reform era, both of Pyongyang's former patrons abandoned their security commitments to North Korea, leaving Kim Jong-il unable to count on their sizeable conventional and nuclear forces to deter the increasingly superior forces of the United States and its regional allies. Pyongyang's ballistic missile and nuclear weapons programs had been initiated precisely because Kim Il-sung recognized that his patrons' commitments might be revised or even reversed.⁴ By the 1990s, those programs had advanced significantly, with publicly available intelligence reports estimating that North Korea had enough fissile material by 1994 to build one or two nuclear bombs.⁵ Without drastic provocation, even a particularly bold U.S. administration would not attempt to strike a regime armed with survivable nuclear weapons. Consequently, as long as Kim Jong-il was able to hide his nuclear arms from a preemptive attack, he could be relatively confident that foreign forces would be deterred.

North Korea was also abandoned economically by its two Cold War sponsors. As China and Russia became integrated into the global economy, they

could no longer afford to support their former client states, especially a state such as North Korea with little to offer in return.⁶ The heavy industry on which Kim Il-sung had based North Korea's command economy could not compete in the global market. Having lost its highly favorable trade arrangements with the Communist world, the North Korean economy experienced a severe depression, contracting by about 30 percent during the 1990s.⁷ A devastating famine ensued, and Pyongyang was forced to make an unprecedented request for food aid from the international community. Some observers have estimated that 10 percent or more of North Korea's population died of starvation.⁸ Pyongyang's ability both to ensure the loyalty of its elites as a safeguard against a coup and to isolate the population and provide for its most basic needs to avoid revolution was jeopardized.

Yet, the regime was able to maintain its system of social control. Although international monitors accompanying food shipments ensured that the aid could not be diverted to the military or other elites, Kim Jong-il selected the villages and provinces that were eligible for aid delivery. Starvation could thus be used to discipline restive provinces. Pyongyang's propaganda machine was also able to parry every attempt by foreign donors to take credit for their humanitarian gifts. Grain sacks labeled with their foreign origin, for example, were described to North Korean recipients as reparations for damage inflicted during the Korean War.⁹

More importantly, as North Korea's economy crumbled, its export base in legitimate goods steadily shrank. Unable to obtain international loans, the regime was forced to rely on North Korea's modest export base as its only source of hard currency.¹⁰ Kim Jong-il's ability to support the comfortable lifestyles of the regime's elites and thereby to assure their loyalty was directly threatened, forcing him to find a new way to retain or even increase the hard currency available to the regime. Three possibilities appear to have been attempted.

First, Kim has tried to cut costs by reducing the resources necessary to support his elites. All elites are not created equal. Under the "Military First" policy, proclaimed in 1999, the rest of society, including civilian elites, is required to make sacrifices to support the country's defenders.¹¹ Self-sufficiency is encouraged among the elites. Diplomats sent abroad by Pyongyang, for example, have been caught smuggling small quantities of narcotics in order to pay for overseas missions.¹² Further slimming, however, increases the risks to the regime's survival, as the number of affected elites grows larger.

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A second option considered reforming the economy to increase the country's legitimate export revenue. Given North Korea's lack of surplus cash and its inability to secure loans abroad, foreign investors would have to finance such reforms. Kim has taken some small steps toward making North Korea more attractive to investors, such as creating two "free economic zones" that operate under less draconian economic restrictions, but advancing them will pose a two-pronged challenge to the regime's viability.¹³

Pyongyang's willingness to engage in ever-riskier illicit trade is sure to increase.

Kim's personal legitimacy is partially grounded in his ability to preserve his father's "successful" policies.¹⁴ A massive restructuring of North Korea's economy would signal an explicit rejection of Kim Il-sung's policies and would therefore threaten the legitimacy of Kim Jong-il's leadership. Worse, any serious attempt to modernize the economy and increase exports, requiring a broad opening and decentralization of economic decisionmaking, would weaken, perhaps fatally, the regime's

control over the population's access to information.¹⁵

Finally, Kim Jong-il has tried to develop new sources of hard currency without substantially changing the existing economy. In the 1990s, North Korea engaged in considerable illegitimate trade, including large-scale narcotics trafficking, currency counterfeiting, ballistic missile sales, and industrial and sexual slavery.¹⁶ These new exports grew in parallel with the decline in legal exports, reflecting Pyongyang's attempt to exploit the country's one undeniable economic advantage: its willingness to endure international isolation and opprobrium. Some experts have estimated the revenue generated from North Korea's illegal trade to be on the order of several hundred million dollars.¹⁷ Perhaps this amount is currently sufficient to sustain the essential elites, but as legitimate exports continue to wither, Pyongyang's willingness to engage in ever-riskier illicit trade is sure to increase.

The New Cash Crop

The rapid economic decline of the 1990s greatly increased the threat to Kim Jong-il of a coup launched by dissatisfied elites. To mitigate this threat, Kim was forced to accept increased risk of foreign intervention by entering into illegal trade and of popular revolt by introducing minor reforms. Yet, Kim might perceive that North Korea's emerging nuclear arsenal would strongly deter foreign intervention, enabling him to focus on compensating for the continued deterioration of his ability to support the elites. To generate the

necessary revenue, Kim could attempt once again to extort aid from the international community with his nuclear program. Failing that, however, he might resort to a new method: selling the fruits of the program.

In assessing the threat of a North Korean nuclear black market, how much demand might exist, and how profitable might such a market be? How would North Korea assess the risks inherent in such sales, and would the potential profit be worth these risks? How seriously should the United States and its partners in the region regard the potential threat?

DEMAND AND SUPPLY

In principle, a North Korean nuclear weapons enterprise should be profitable as long as sufficient demand exists, and the purchase of fissile materials or weapons is inherently cheaper than it would be for buyers to produce their own. There are strong reasons to suspect that both conditions are satisfied. The world has a number of relatively wealthy yet insecure regimes who would be potential customers for North Korea. These states might be willing to expend considerable resources to acquire a nuclear deterrent now if it could be accomplished covertly. Increased international attention regarding nuclear proliferation in the wake of post-Gulf War revelations about Iraq's nuclear program has greatly increased the difficulty and cost of pursuing a clandestine program, and both North Korea's experience in the 1990s and the recent war in Iraq have demonstrated the severe consequences of detection. Therefore, if North Korea can ensure the confidentiality of its transactions, the demand from other states for potentially less detectable, cheaper transfers could be high.

There are a number of recognized potential buyers for North Korea's nuclear goods, including Egypt, Iran, Syria, and Yemen, all of which have negotiated with North Korea for arms transfers in the past.¹⁸ Although Iran apparently has its own nuclear program, Tehran might nonetheless seek an immediate deterrent to hedge against the risk of intervention by U.S. forces currently based in Afghanistan and Iraq. Other less obvious states are also potential clients. Saudi Arabia might come to doubt the sufficiency of its alliance with the United States in the face of active nuclear programs in Iran and Israel. Taiwan might see nuclear weapons as the only way to respond to the threat of invasion or coercion by China, although North Korea might hesitate to alienate its only friend in the region by accepting Taiwan as a customer. Even Venezuela might be a potential buyer as President Hugo Chavez's government, similar to many Middle Eastern states, has ample revenue from nationalized oil exports, is apparently moving toward autocracy, and finds itself increasingly at odds with the United States.¹⁹

North Korea could have a monopoly in the nuclear black market.

There is one other type of potential buyer. Terrorist organizations such as Al Qaeda and Aum Shinrikyo view the acquisition of weapons of mass destruction (WMD) as a religious duty and have expended considerable effort on developing, purchasing, or stealing nuclear, biological, chemical, and radiological weapons.²⁰ These organizations might be first in line for a North Korean nuclear weapon, although their demand would be relatively low due to their limited resources. Notably, although states primarily use nuclear

weapons to deter others, terrorist organizations would presumably use the weapons offensively.

On the supply side, North Korea would probably have large, secure comparative advantages. It has very large natural uranium reserves suitable for refinement into the basic ingredients needed to manufacture nuclear weapons. North Korea has already built many of the necessary facilities and developed the

requisite expertise and technology. Potential customers could readily supply the essential elements that are scarce in North Korea, such as cheap energy and advanced machinery.

These advantages pale in comparison to North Korea's ability to pursue production openly, an advantage that would give North Korea a monopoly in the nuclear black market. The existing nuclear-weapon states, with the exception of rogue elements such as A. Q. Khan's network, have no desire to share their resources. Even Pakistan, the poorest and least stable of these states, is unlikely to risk destroying its relationship with the United States by selling its nuclear resources.

For states seeking to acquire nuclear weapons, open development risks preventive attack and possibly regime change, as in the case of Iraq, or near total isolation, as with North Korea. Keeping an indigenous nuclear weapons program secret can raise its costs by an order of magnitude. The production of fissile material imposes most of the cost of a program and also most of the risk because it is the most difficult part to conceal.²¹ If the necessary fissile material were purchased from North Korea, a program to build warheads from the material would be much cheaper, though still risky. A more risk-averse customer might simply buy North Korean warheads. North Korea might even provide assistance in mating the warheads to ballistic missiles.

North Korea is likely to maintain this advantage as long as Pyongyang can continue to placate Washington and others by participating in draw-out negotiations and occasionally freezing parts of its nuclear enterprise.

North Korea has remained the most isolated state in the world for many years, in spite of international pressure and even condemnation. It is apparently impervious to international calls to cease its own fissile material production.

These comparative advantages could lead to a very large profit margin for Pyongyang. By 1991, North Korea's own nuclear program was estimated to have cost more than \$200 million.²² Adding in the uranium-enrichment program that was discovered by the United States in 2002, the total cost of Pyongyang's nuclear enterprise is likely to be on the order of several hundred million dollars.²³ Because the only alternative for customers—indigenous development—is far more costly and risky, sales could result in annual profits ranging from several hundred million dollars to more than a billion dollars. This revenue would exceed the amount commonly estimated to be generated from the sale of ballistic missiles and narcotics, Pyongyang's other cash crops,²⁴ and profits would grow quickly if both demand and North Korea's currently modest production capacity increased. It seems clear that unless these sales are prevented, the nuclear weapons market could be quite lucrative for Pyongyang.

RISK ASSESSMENT

Of course, Pyongyang will undoubtedly examine and assess the possibility of external interference to stop its sales. The key to minimizing the risk of international intervention is to maintain plausible deniability. If North Korea can plausibly deny its role, it might calculate that the United States would be unable to gain the international support it would need to intervene effectively. This strategy requires that the observable elements of North Korea's nuclear enterprise not offer evidence suggestive of Pyongyang's sales and that the sales themselves and the accompanying transfers go undetected.

To do that, North Korea must first preserve the plausibility of its continuing claim that its nuclear weapons program is intended solely for its own security, a claim that is not without merit. Pyongyang has been largely abandoned by its two former security guarantors, Russia and China, each of which, in addition to abrogating existing mutual defense treaties, has ceased to supply cheap military hardware and technology to North Korea. The economic contraction of the 1990s likely resulted in a decline in the combat readiness of North Korea's conventional military forces, as well as a subsequent underinvestment in modernization and capital replacement. Meanwhile, South Korean and U.S. defense budgets remain high, and the capabilities of their military forces have increased.

North Korea can probably use these facts to justify its current observable production capacity and level of activity and perhaps even a slight augmen-

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tation of its nuclear capacity. Overtly and substantially increasing its arsenal, however, would undermine these claims and increase the risk of international intervention. Significant new production capacity necessary to supply foreign customers would have to be concealed from foreign observers. Conveniently, the mountainous terrain around Yongbyon and elsewhere in North Korea offer ample opportunity to expand the country's nuclear infrastructure

underground. North Korea already has many subterranean facilities for conventional military purposes. If detected, Pyongyang could plausibly claim that new underground construction was for these legitimate purposes.²⁵

North Korea would also have to assess the possibility that individual transactions might be detected. Knowledge of each nuclear transaction would have to be held in the highest secrecy within the regime itself, and

Pyongyang would expect the same from its customers. North Korea would have to take great care that its negotiations with customers were not leaked or exposed and might have to conduct them in person to guarantee security. Payment could easily be concealed in the mosaic of international currency transactions and the opacity of North Korea's domestic economy. Although the U.S.-led Proliferation Security Initiative (PSI) adds increased risk to shipping the weapons by sea, Pyongyang could use aircraft or even smuggle weapons or their constituent parts by land across its porous border with China.

Recent interdictions of some of Pyongyang's illicit shipments and the discovery of Khan's nuclear network might be expected to reduce Pyongyang's confidence in its ability to conceal nuclear transfers. Nuclear cargoes, however, would be much more difficult to detect than the missile and narcotics shipments that have been interdicted thus far. Ballistic missiles weigh on the order of 10,000 kilograms and bulk narcotics around 1,000 kilograms, yet a quantity of fissile material sufficient for a nuclear weapon weighs only about 10 kilograms. A full nuclear warhead would be larger, at around 1,000 kilograms, but could be partially disassembled for transport. Besides being easier to hide, the lower weight implies that fewer people are needed to execute the transfer, thus reducing the risk of penetration by foreign intelligence services.

Once the buyer had taken possession of its purchase, Pyongyang could no longer control the possibility of detection. It is unclear whether the United States could trace a nuclear detonation back to a North Korean warhead or one manufactured from North Korean fissile material.²⁶ Even if the United

States could not confidently attribute a nuclear blast to Pyongyang, the other nuclear-weapon states might be cajoled into providing the data necessary to prove their innocence, thus fingering Pyongyang by the process of elimination. Therefore, North Korea must choose its customers carefully, aiming to minimize the probability that its customers would ever employ their purchases or reveal the seller.

Relatively stable states would be the safest buyers because they would seek nuclear weapons primarily for the purpose of deterrence, not use. Of course, to realize the deterrent value of its purchased arsenal, a state would have to reveal or at least hint at its new nuclear possessions. To avoid the international repercussions of proliferation, a policy of strategic ambiguity, such as those currently employed by Israel and previously by South Africa, seems the likely choice. The recipient state might reveal its capability only in a crisis and, even then, would not offer strong evidence of a North Korean sale unless a weapon was actually detonated.

Ramshackle states headed by extreme, unstable regimes, such as Somalia or Afghanistan under the Taliban, would be riskier choices for Pyongyang because of the potential for internal strife or reckless aggression. Moreover, such states would probably not be able to afford North Korea's desired price. Following this logic, terrorist organizations would present the worst risk of all potential customers. As with poorer states, they might be unable to meet the asking price, and Pyongyang might lack confidence in their operational security. Most importantly, the probability that terrorists would expose Pyongyang, either by detonating the weapon or having it captured, is simply too high.

Pyongyang might perceive that it can mitigate most of the risks of detection by taking great care in the selection of customers and the execution of each transaction. Although none of North Korea's other illicit businesses constitute as serious an affront to the international community as the sale of nuclear weapons, these ventures are also not as potentially lucrative. Rising economic pressures on the regime could lead it to conclude that the gain was worth the risk.

Implications for U.S. Policy

A number of forcible options for suppressing the threat of North Korean nuclear sales exist, although each has its problems. The United States could strike North Korea's nuclear infrastructure, but this action could result in a number of adverse consequences and might be ineffective if the intelligence community were unable to locate all of North Korea's nuclear facilities.²⁷ Alternatively, the United States might attempt to prevent North Korea from

shipping its nuclear resources abroad, a step that would require strong, reliable support from Japan, Russia, and especially China and South Korea to cut off North Korea's borders and waterways successfully. Beijing and Seoul have clearly expressed their strong desire to exhaust the possibilities for negotiated solutions before turning to the use of force, even hesitating to join the PSI. Therefore, the United States must first attempt in good faith to arrive at a new deal with North Korea.

With enough economic pressure, Pyongyang will eventually sell anything to anyone.

The history of Pyongyang's dealings with the international community has left many U.S. officials deeply skeptical. Too many previous bilateral agreements and international treaties have unraveled in the face of North Korea's failure to abide by its commitments. The U.S. administration's relatively inflexible approach to the six-party talks seems to be designed to break Pyongyang of its habit of demanding concessions in return for evanescent promises of future progress toward nuclear disarmament.

North Korea's refusal to enter into a fourth round of these talks may be intended to test the Bush administration's mettle and to drive a wedge between Washington and its partners in the region. Unfortunately, North Korea's intransigence may also reflect the regime's conclusion that further talks are pointless. If Pyongyang can no longer use its nuclear program to extort aid from the international community, rising economic pressures on the regime will force it to find new ways of generating revenue. It may well resort to selling its nuclear resources, stealthily and at a tidy profit, albeit most likely not to Al Qaeda or other risky customers.

The United States must clearly convey to North Korea and others in the region the great importance that Washington assigns to its interest in nuclear nonproliferation as well as the lengths to which the administration will go to prevent the further transfer of nuclear materials and weapons. The recent criminalization of WMD proliferation to nonstate actors by the UN Security Council, expansion of the PSI, and energetic pursuit of other efforts to strengthen nuclear nonproliferation are surely steps in the right direction.²⁸ Nevertheless, Washington has yet to issue any direct, public statement to Pyongyang about the consequences of transferring its nuclear resources abroad. Doing so could undercut the ongoing talks, either by alienating Seoul and Beijing or by communicating implicitly to Pyongyang that Washington is not fully committed to pursuing North Korea's nuclear disarmament. A useful distinction can be made, however, between these two interests. Although the United States regards North Korea's nuclear weapons program

as a gathering threat—a perception that allows time for the involved parties to engage in peaceful negotiations—the transfer of fissile material or nuclear warheads to a terrorist organization would be regarded by the United States as an imminent threat, necessitating immediate action.

None of these options are particularly reassuring, but neither is simply believing Pyongyang's claim that it will continue to restrain itself from selling its fissile material or nuclear warheads. Even Kim Yong-nam, second only to Kim Jong-il in North Korea's government, declared that, "in regard to nuclear material, our policy past, present, and future is that we would never allow such transfers to al-Qaeda or anyone else."²⁹ Of course, North Korea has already transferred uranium hexafluoride, a precursor to fissile material, to Pakistan, edging dangerously close to that bright red line.³⁰ North Korea's history and prospects for the future are clear: faced with enough economic pressure, Pyongyang will eventually sell anything to anyone. This threat is plausible, and it is one that the United States and its partners should regard with the utmost gravity.

Notes

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23. This figure is consistent with estimates given in OTA's *Technologies Underlying Weapons of Mass Destruction*.
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