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# Rethinking Arms Control with a Nuclear North Korea

**Toby Dalton and Jina Kim**

North Korea has possessed nuclear weapons for more than a decade. It has conducted as many nuclear-explosive tests as India and Pakistan, and probably retains an arsenal numbering some 20–30 warheads.<sup>1</sup> It fields an array of missiles that can carry nuclear weapons to points as far as Washington DC and as close as metropolitan Seoul. North Korean leader Kim Jong-un has described nuclear weapons as a ‘powerful treasured sword’.<sup>2</sup> The probability that he will voluntarily negotiate the denuclearisation of his arsenal in the near future is vanishingly small, perhaps comparable to the odds of global nuclear disarmament or North Korea’s chances of winning the 2026 World Cup.

The declared policies of the United States, South Korea, Japan and others toward North Korea seem not to have grasped this. These states continue to espouse a policy of complete denuclearisation while sustaining severe economic sanctions on North Korea, despite the clear lack of tangible, positive results from this approach. No leader wants to acknowledge policy failure, but the costs and risks of continuing to pursue denuclearisation as the paramount objective toward North Korea are rising with the growth of Pyongyang’s nuclear arsenal, its development of tactical nuclear weapons and its adoption of a nuclear war-fighting strategy.<sup>3</sup> Since North Korea will not disarm voluntarily,

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the United States and its East Asian allies need to adjust their policies based on an acceptance of the fact that North Korea possesses nuclear weapons.

The obvious and most realistic way of dealing with North Korea's nuclear threat is through deterrence, something that scholars and independent analysts have been advocating for years. Scott Sagan, for instance, argued in September 2017 that 'North Korea no longer poses a non-proliferation problem; it poses a nuclear deterrence problem. The gravest danger now is that North Korea, South Korea, and the United States will stumble into a catastrophic war that none of them wants.'<sup>4</sup> Sagan believes that avoiding war through deterrence requires an end to pre-emptive regime-change threats linked to denuclearisation, and that Kim must instead be convinced that 'the United States will not attempt to overthrow his regime unless he begins a war'. Shifting from denuclearisation to deterrence may seem impolitic to the extent that it tacitly acknowledges North Korea as a nuclear possessor, yet there are few alternatives for dealing with a nuclear-armed adversary.

Deterrence is not a comprehensive strategy for avoiding nuclear Armageddon, however. Indeed, because deterrence is connected with an adversary's capabilities and intentions, states perpetually seek to improve and modernise armaments in ways that can produce arms races and security spirals; they also tend to adopt strategies that prioritise offensive or pre-emptive actions that increase escalation risks.<sup>5</sup> For those reasons, leaders in successive Republican and Democratic administrations in Washington from the mid-1960s found it wise to pursue complementary measures with their Soviet counterparts to mitigate arms racing and to reduce the potential risks and consequences of deterrence failure.<sup>6</sup> Risk-reduction measures took the form of negotiated agreements and declaratory statements to limit and reduce nuclear arms; to provide transparency on military capabilities to reassure adversaries and avoid surprise; and to create more predictability in the two sides' relations. These risk-reduction agreements became commonly known as 'arms control'.

If leaders in Seoul, Tokyo and Washington arrive at a similar conclusion about the need to both deter North Korea and manage deterrence through risk-reduction efforts, how might such an approach work? How could conventional and nuclear capabilities, including those of the United

States, be linked in a comprehensive arms-control process? Thus far, scholarship on the denuclearisation of North Korea has not addressed the problem in these terms. The American and South Korean literature is replete with discussion of phased denuclearisation, yet rarely considers the US and South Korean side of the bargaining or approaches the problem from an arms-control perspective. The literature on conventional arms control on the Korean Peninsula tends to assume the denuclearisation of North Korea without addressing the connections between the two. The few recent studies on nuclear arms control do not consider the complex conventional–nuclear deterrence situation on the peninsula, or the need to simultaneously address North Korean, South Korean and American military capabilities.

Arms control with North Korea is a controversial idea and beyond the boundaries of acceptable policy in Seoul and Washington. However, the existing approach to North Korea carries with it an increasing risk of miscalculation, potentially resulting in catastrophic conflict. Given these risks, it is well worth analysing alternative approaches, even ones as provocative as arms control. Policymakers may ultimately deem comprehensive arms control impractical or unwise, but it is better to debate that proposition than to stick to failing approaches that have been overtaken by events.

### **Reframing an evolving problem**

The standard Western framing of the North Korea problem centres on non-proliferation and the desire to be rid of North Korea's nuclear weapons, hence the repeated calls for 'complete, verifiable, irreversible denuclearization'.<sup>7</sup> The South Korean discourse is similar, but often considers the problem in the context of achieving a peace regime and, ultimately, the reunification of the Korean Peninsula.<sup>8</sup> Given these motivations, ongoing calls for denuclearisation are understandable in political terms – it is easier to maintain that North Korea will disarm – but result in poor policy options. In particular, this framing ignores how the security environment has evolved on the Korean Peninsula since the early 1990s, failing to take into account the complex deterrence equation involving both nuclear and conventional military capabilities, and the South Korea–US alliance.

North Korea's nuclear programme has steadily advanced since the early 1990s, even during periodic negotiated pauses such as the 1994 Agreed Framework, which delayed some elements of the country's nuclear-weapons development but failed to mature into nuclear reversal. As of mid-2021, estimates indicated that North Korea possessed enough fissile material for 45–55 nuclear warheads.<sup>9</sup> It has tested various short-, medium- and long-range nuclear-capable missiles, including manoeuvring missiles seemingly intended to defeat US and South Korean missile-defence systems. North Korean officials assert that the United States' 'hostile policy' is the main driver of nuclear developments,<sup>10</sup> but they have also periodically signalled concerns about growing South Korean military and economic power. In

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### *The US, South Korea and North Korea have defaulted to deterrence*

March 2022, for example, in reference to South Korean plans to use conventional missile-strike capabilities to pre-empt a North Korean nuclear attack, senior North Korean official Pak Jong-chon warned that South Korean military officials 'must be crazy or silly to speak of "preemptive strike" on the nuclear weapons state'.<sup>11</sup> In addition to nuclear capabilities, North Korea is modernising its artillery and multiple-rocket systems to hit military targets in South Korea.

To defend against North Korea's burgeoning capabilities, South Korea continues to invest in a suite of upgraded conventional capabilities: F-35 fighter aircraft, attack submarines, and ballistic and cruise missiles to enable a 'kill-chain' pre-emptive counterforce strike to disable North Korean nuclear missiles on the launch pad.<sup>12</sup> The United States and South Korea have taken steps to enhance the combined deterrence of North Korea, for instance by conducting joint military exercises.<sup>13</sup> American nuclear deterrence has been extended to both South Korea and Japan – the so-called 'nuclear umbrella' – under the terms of Washington's bilateral military alliances with each.

With the failure to negotiate a durable denuclearisation agreement or inter-Korean conventional military restraints, the United States, South Korea and North Korea have in most ways defaulted to deterrence to protect their security, even if official policy pronouncements do not reflect

this.<sup>14</sup> Increasingly, the parties have worked to generate deterrence effects with both advanced conventional and nuclear weaponry. North Korea uses nuclear and conventional weapons to deter perceived regime-change threats from the US and South Korea. South Korean conventional-strike platforms are aimed at deterring North Korean nuclear coercion. And US extended nuclear deterrence aims to dissuade North Korea from carrying out military attacks against South Korea or nuclear strikes against the United States. Yet, as North Korea's nuclear capabilities have grown, and South Korea and the United States have adapted their capabilities and deterrence posture in response, a security spiral has deepened that has encouraged arms racing and heightened crisis-escalation risks. Unless the parties find an off-ramp from this spiral, subsequent security enhancements by Seoul and Washington will drive Pyongyang to produce ever more nuclear weapons and delivery systems designed to defeat missile defences, and to adapt its nuclear posture to avoid 'use or lose' pressure, which in turn will propel the allies to field additional offensive and defensive capabilities.

Disquieted by the dangers posed by the security spiral and the potential for conflict escalation in an increasingly nuclearised Korean Peninsula, some South Korean and American scholars have begun to consider the potential for nuclear risk reduction or arms control.<sup>15</sup> This framing recognises North Korea's continued possession of nuclear weapons and prescribes successive negotiated restraints on North Korea's nuclear missiles to slow the emerging arms race and to mitigate conflict escalation, as an alternative to pressuring North Korea to agree to the complete, verifiable and irreversible dismantlement of its nuclear enterprise. These studies tend to stop short of considering what North Korea might demand in return, however, such as constraints on South Korean and American military capabilities perceived as threatening in Pyongyang.

The blurring of conventional and nuclear deterrence on the Korean Peninsula suggests that a successful arms-control approach would have to tackle a broad set of military capabilities on each side. Comprehensive arms control would necessarily imply restraints not just on North Korean nuclear weapons, but also on the conventional military capabilities of South Korea and the United States, and perhaps on US nuclear capabilities as well.

### Arms control ... again?

Pursuing arms control with North Korea is not a new idea. Arguably, the 1994 Agreed Framework featured actions and transparency measures that at the time were considered steps toward ensuring North Korea remained free of nuclear weapons, yet functionally were similar to nuclear-risk-reduction measures. For example, the freeze on plutonium production and monitoring by US experts provided assurance that North Korea's nuclear-weapons capacity remained limited. However, the notion that such steps would constitute nuclear arms control with North Korea was never a consideration at the time. Inter-Korean arms control, on the other hand, has been a much more robust topic of study, with periodic efforts by the two Koreas to translate ideas into practical restraints.

Many scholars believed that serious talks on arms control would follow the signing of a basic accord between the two Koreas and a joint declaration on the denuclearisation of the Korean Peninsula in 1991. With the withdrawal of US forward-deployed nuclear weapons from South Korean territory that year – before North Korea's nuclear ambitions became clear – the two Koreas seemed poised to build a new relationship based on detente, which could enable conventional military restraints despite the continued presence of US military forces in South Korea. One early study, for instance, framed the main objectives for inter-Korean arms control in terms of resolving political and military disputes, and preventing miscalculation and misperception that could escalate into military conflict.<sup>16</sup> This and other contemporary studies downplayed US military capabilities as a relevant factor, assuming instead that the main challenges to inter-Korean arms control would originate in differing priorities and mistrust, a lack of understanding in South Korea of North Korea's anxiety over its continual struggle against the South, and the mishandling of Pyongyang's negotiating tactics.<sup>17</sup> One of the few studies to directly address the role of the United States in inter-Korean arms control considered how and when US military forces could be reduced through negotiations, stipulating that there would be equal ceilings on artillery, tanks and armoured personnel carriers for a combined US–South Korean force and North Korean forces.<sup>18</sup> Otherwise, 'end-state' challenges of this kind tended to be subsumed in broader discussions of security in Northeast Asia that emphasised the need for a regional security mechanism

that could address problems arising on the Korean Peninsula, including the continued presence of US military forces in South Korea.<sup>19</sup>

As North Korea's development of nuclear weapons became clear after 1993, giving rise to a perceived need for denuclearisation, the previous logic linking arms control on the Korean Peninsula with wider considerations of regional security gave way to a bifurcated approach in which inter-Korean military issues became subordinate to nuclear discussions between the US and North Korea. In effect, progress toward denuclearisation was seen in South Korea (and probably also in the United States) as a precondition for inter-Korean arms control. If the initial co-evolutionary logic had held, the 1994 Agreed Framework, for example, might have enabled progress on inter-Korean arms control. Following the Agreed Framework, however, when inter-Korean dialogue did occur in parallel with sustained periods of negotiation on nuclear matters, the agenda focused mainly on non-contentious issues, resulting in incremental, rather than comprehensive, steps.<sup>20</sup> This pattern held through the subsequent 2003–09 Six-Party Talks. For instance, at the second inter-Korean summit in October 2007, the two Koreas agreed to hold a defence ministers' meeting in Pyongyang to discuss measures intended to encourage non-aggression and to reduce tensions. Yet the only measure that was successfully implemented was the elimination of propaganda efforts in the Demilitarized Zone (DMZ), which was North Korea's main concern. Other intended measures, such as the notification of military exercises, the exchange of military personnel and the installation of direct military telephone lines, were put on hold and ultimately shelved when nuclear negotiations under the Six-Party Talks stalled.

Notwithstanding the poor record of arms control on the Korean Peninsula to date, the 2018 summits between Moon Jae-in, then president of South Korea, and Kim Jong-un, and between Kim and US president Donald Trump, created new optimism about a breakthrough.<sup>21</sup> The conclusion of the Comprehensive Military Agreement between the two Koreas in September 2018 seemed to indicate that the denuclearisation precondition was weakening, and that inter-Korean arms control could proceed without parallel progress on denuclearisation. In contrast with previous inter-Korean agreements that mostly did not result in the implementation of



agreed arms-control steps, the September 2018 military agreement was able to advance beyond initial trust-building to concrete steps to restrain military operations. For the first time, the leaders of the two Koreas defined a shared vision for how to use arms control to achieve mutually agreed objectives, agreeing to substantially reduce the danger of war across the Korean Peninsula and to fundamentally improve their relations.<sup>22</sup> In addition to several operational military constraints, the two Koreas agreed to reduce the risks of accidental or inadvertent provocation and escalation, and to mitigate sources of tension, such as fishing in disputed waters.

The implementation record for the Comprehensive Military Agreement also breaks with past practice. Some of the agreed measures were implemented relatively quickly, and not simply because they were low-cost or logistically easy; destruction of guard posts in the DMZ is a case in point. Several of the implemented measures – such as completing the withdrawal of troops and firearms from 20 front-line guard posts in the DMZ within two months, verifying the demilitarisation work with the UN Command at the Joint Security Area in Panmunjom, and carrying out joint inspections on both sides of the contested border – constituted marked changes in military operations. However, work to implement other measures, such as the establishment of a joint military committee to continue high-level inter-Korean military talks, never started (see Table 1).

Despite the apparent progress made under the 2018 inter-Korean military agreement, events ultimately demonstrated that it remained captive to the prevailing bifurcated negotiating structure, even without being explicitly linked to the nuclear discussions then ongoing between North Korea and the United States. In the absence of any progress in denuclearisation talks, North Korea revealed a new plan for its nuclear posture and increased training exercises, including the firing of hundreds of artillery shells into the maritime buffer zones established by the 2018 Comprehensive Military Agreement, which South Korea criticised as ‘overt violations’ of the agreement.<sup>23</sup> As in the past, the failure of nuclear negotiations to yield sustained movement toward denuclearisation meant that inter-Korean arms control had limited space to progress. In this sense, the 2018 agreement was also fundamentally disconnected from the evolving security environment on the Korean

Peninsula, and especially from the posturing of strategic military capabilities for deterrence by North Korea, South Korea and the United States.

### Toward comprehensive arms control

To overcome the impediments that have frustrated past attempts at inter-Korean arms control, including the denuclearisation precondition, any future arms-control process would need to align with the current strategic environment on the Korean Peninsula. It would need to address both inter-Korean and broader strategic issues not just concurrently, but with some form of cross-linkage – that is to say, in a comprehensive manner. The foundation for this kind of comprehensive approach can be found in the conjoined posturing of both nuclear and conventional military capabilities for deterrence by North Korea, South Korea and the United States. The

Table 1: **Implementation status of measures under the 2018 Comprehensive Military Agreement**

| Objective  | Measures   | Progress |
|--|--|----------|
| Completely cease all hostile acts against each other in every domain                     | Suspend artillery training and outdoor-manoeuve training above the regiment level within five kilometres of the Military Demarcation Line                    | V        |
|  | Install covers on the ports of coastal guns and close the gun gates, and prohibit live-fire artillery drills and maritime-manoeuve training in agreed waters | P        |
|  | Discuss various measures (such as the cessation of reconnaissance and the augmentation of force) to realise phased disarmament                               | N        |
| Turn the areas around the Northern Limit Line in the West Sea into a maritime peace zone | Establish a peace zone and a joint fishing zone in the West Sea  | N        |
|  | Plan and develop measures for joint patrol to prevent illegal fishing within the joint fishing zone and to ensure the safety of fishing activities           | N        |
| Turn the DMZ into a peaceful area and begin recovery of war remains                      | Withdraw guard posts that are within 1 km of each other and completely withdraw all guard posts within the DMZ   | P        |
|  | Demilitarise the Panmunjom Joint Security Area and ensure mutual visits  | P        |
|  | Jointly plan to excavate war remains within the DMZ  | N        |
| Establish a joint military committee and hotlines between military authorities           | Continue to discuss the issue of installing and operating a direct line between South and North Korean military authorities                                  | N        |
|  | Discuss in detail issues related to the formation and operation of the North-South Joint Military Committee  | N        |
|  | Jointly check and evaluate the implementation status of military agreements on a regular basis   | N        |
| Militarily support cooperation, exchanges, visits and contacts at all levels             | Discuss military-security measures for joint use of the Han River estuary  | N        |
|  | Develop measures for the connection and modernisation of railway roads along the east and west coasts  | N        |
|  | Discuss the use of direct routes to Haeju and passage through the Jeju Strait through the Joint Military Committee   | N        |

N: Not implemented, P: Partially implemented, V: Implemented but subsequently violated

relationship between the nuclear and conventional domains is further indicated by North Korea's threats of attack against South Korea and the United States, and the South Korean–American response in the form of combined conventional military forces and the United States' extended deterrence. More specifically, the growing arsenals of nuclear-capable ballistic and cruise missiles possessed by both South and North Korea, which can carry large conventional or nuclear payloads, blur the physical and conceptual boundaries of conventional and nuclear capabilities. (South Korea does not possess nuclear weapons, but many of its missiles have the technical capacity for nuclear delivery.) South Korea's use of conventional-strike capabilities for strategic deterrence is an important development in this respect.<sup>24</sup>

The blurring of conventional and nuclear forces effectively means that developments in one domain can influence developments in the other. Restraints on nuclear weapons would have implications for conventional military forces, and vice versa. Indeed, the failure of past efforts to restrain North Korea can plausibly be blamed at least in part on the separation of the nuclear and conventional military domains into unlinked negotiating tracks. Managing this complex deterrence dilemma would require risk-reduction measures in both domains. For instance, it may be difficult, perhaps impossible, to devise nuclear-weapons measures that North Korea would agree to in the absence of some reciprocal conventional-military steps by South Korea.

Managing deterrence through comprehensive arms control would also require that some agreed balance of capability be maintained so as to avoid displacing arms races from one domain to the other. Notably, over the past decade, North Korea has carried out a significant modernisation of its conventional forces to make them more suited for limited military operations prosecuted under the threat of nuclear escalation. Its capabilities include hypersonic, manoeuvrable missiles; intelligence, surveillance and reconnaissance (ISR) systems; and armed drones, among others.<sup>25</sup> In addition, North Korea has claimed to be developing tactical nuclear weapons and has threatened to use them early in a conflict.<sup>26</sup> Combined, these capabilities could give North Korea an ability to pursue an asymmetric escalation strategy against South Korea and the United States. A comprehensive

arms-control effort could blunt the potential for North Korea to operationalise this strategy, thus mitigating arms-race risks.

Another consideration for negotiators is that the parties may have wildly different values and priorities in seeking to define and maintain a military balance. Indeed, North Korean leaders may perceive something of a dilemma: restraints in one domain may be acceptable since they could be offset by capabilities in the other, whereas comprehensive restraints would come at greater risk, even though they could result in more reciprocal measures from South Korea and the United States. For example, North Korea might be willing to adopt measures that reduce the threat posed by its long-range artillery and multiple-rocket-launch systems, but only provided that it is able to maintain a sufficient nuclear capability to deter perceived US and South Korean regime-change threats.

A comprehensive negotiation would have to address the dilemmas of arms control for both Koreas. For North Korea, US security guarantees appear to be important, even though North Korean officials have cast doubt on the reliability of such promises and the extent to which they reflect a fundamental change in what they perceive as the United States' hostile policy toward their country.<sup>27</sup> If North Korean leaders feared that a US president might renege on an agreement, they would likely hedge on nuclear and conventional arms control, seeking to retain an ability to reconstitute capabilities. However, linking North Korean nuclear restraints to parallel South Korean and US conventional military restraints might diminish this impulse, thus permitting sustained progress. Similarly, South Korea will be hesitant to constrain or reduce the conventional deterrence capabilities it has been acquiring without corresponding steps by North Korea to restrict both nuclear and conventional capabilities.

A comprehensive approach could address some of the procedural hurdles to past agreement. Explicitly linking nuclear and conventional arms-control negotiations might limit the potential for North Korea to play one track off the other in a bid to maximise concessions, or to try to drive a wedge between South Korea and the United States. That said, an inevitable side effect of linking negotiations across the conventional military and nuclear domains is that a blockage in one track is likely to stymie movement in the other.

Finally, tighter policy planning and coordination between South Korea and the United States would be a necessary condition for negotiating and implementing a comprehensive approach. The inevitable frictions caused by diverging priorities between Seoul and Washington, and fears among South Koreans that US negotiators will not represent their interests, create fissures that North Korea is practised at exploiting. Linking conventional and nuclear issues in ways that implicate both American and South Korean capabilities and force postures would necessitate closer coordination, information-sharing and common negotiating positions.

### **A comprehensive arms-control typology**

A comprehensive negotiation that links conventional- and nuclear-weapons restraints would need to address a range of political, technical and military issues. Studies of past arms-control efforts demonstrate that an excessive focus on technical restraints often leads to failure, while processes that integrate political, military and technical measures tend to have greater durability.<sup>28</sup> With that in mind, a typology is a useful way to organise measures according to characteristics that are applicable across both the nuclear and conventional domains. For a comprehensive arms-control process on the Korean Peninsula, four types of measures are relevant: behavioural, operational, procedural and structural.

Behavioural arms-control steps are principally aimed at creating expectations and predictability about future actions by the parties. This type of measure comprises declaratory actions – whether prescriptive or restrictive – and the associated communications. Prescriptive actions could involve statements of intent to take certain actions, such as pre-notification of military activities. Restrictive measures would involve agreed restraints, such as not making military threats. Behavioural measures could be operationalised through hotlines, periodic meetings among military officers and political officials, or parallel unilateral or joint statements, among other means.

Operational measures are intended to promote predictability by providing buffers against fears of surprise attack and the risks of crisis escalation. Operational restraints could be achieved through restrictions on deployment, posture or exercises, for example by creating force-restriction or

exclusion zones near borders, or by proscribing exercises with nuclear forces. More broadly conceived, operational measures can serve to mitigate economic or political sources of tension, for example by facilitating the cooperative administration of territories or resources (such as fisheries or water).

Procedural arms-control measures involve conveying information or providing other forms of transparency to permit the monitoring and verification of commitments. Declarations, reciprocal visits, inspections and overflights are common procedural measures used in arms-control agreements. The value of procedural measures increases when the information or transparency provided is not otherwise easily acquired or monitored; that is, it may be considered a 'costly signal' that gives the adversary a better understanding of a state's military capabilities.<sup>29</sup>

Lastly, structural arms-control measures involve actions that limit the scope and scale of the military capabilities that states are permitted to possess or deploy. Structural measures might take the form of caps, reductions or proscriptions on future developments, whose purpose is to lock in predictability and stability, and to mitigate the impetus for arms racing. Such measures can also increase the costs of rearming. As with operational steps, structural arms control necessitates procedural measures that allow states to affirm that the other side is meeting its obligations. Indeed, monitoring and verification proved to be consistently challenging for the United States and the Soviet Union (later Russia) to negotiate in their arms-reduction talks.

Past inter-Korean conventional arms-control negotiations have primarily employed behavioural and operational measures, interspersed with some procedural steps. Structural measures remain elusive. In the nuclear domain, past negotiations did not embrace arms-control objectives as such (full denuclearisation was the aim, at least for South Korea and the US), yet the Agreed Framework and Six-Party Talks called for measures that could be characterised as behavioural, operational and procedural. Looking ahead to a putative comprehensive negotiation, this typology could help describe how various forms of arms control might be linked across the conventional and nuclear domains.

### **Organising a comprehensive arms-control negotiation**

If North Korea, South Korea and the United States (and perhaps also China and others) agree to comprehensive negotiations on nuclear and conventional military restraints, this will upend the diplomatic structure that has been in place on the Korean Peninsula for the last three decades. The blurring of conventional and nuclear deterrence similarly necessitates breaking down what has been a fairly defined barrier between those domains in past negotiations. Specifically, South Korea would be a party to negotiations on North Korea's nuclear arsenal and the United States would participate in negotiations on conventional arms control, including steps that would affect US Forces Korea. Analytically, the need to consider the particular technical-political issues of each domain makes it useful to retain some separation between them; negotiators might find it easier to apply a similar separation, even as they may seek to pair restraints across domains as a way to reinforce deterrence stability.

Even so, a comprehensive approach argues for adjusting the scope of each domain. Rather than carrying over the 'nuclear' and 'conventional' tracks of old, it would be logical to instead have a 'strategic' and a 'conventional' track. The logic for adopting the 'strategic' nomenclature is to capture a broader range of capabilities possessed by the parties, to include any chemical and biological capabilities rather than just North Korea's nuclear weapons. Specifically, the strategic domain would cover ballistic and cruise missiles capable of carrying a nuclear payload, even if they are deployed in a conventional role. By bringing in dual-capable missiles, the strategic track would engage South Korean and US capabilities, in addition to North Korea's. This is critical, given that both South and North Korea would presumably seek to retain some number of these missiles as conventional weapons. Thus, adopting terminology that creates more equivalence in capabilities between North Korea, South Korea and the US recasts negotiations in ways that might create more space for arms-control diplomacy. Crucially, it would also give South Korea not just a seat at the nuclear table, but also a direct stake in how strategic issues are deemed to intersect with any conventional military restraints.

Table 2 demonstrates how the four-part typology of arms control can be reflected in a negotiation that distinguishes between the conventional

and strategic domains, with notional examples of specific steps provided for each. The table outlines a logical way of categorising the various measures, but is agnostic on how they could be combined and sequenced to produce an agreement. Combining and sequencing are primarily political matters, subject to the perceptions of the military balance and what could yield deterrence stability, as well as the typical give and take of negotiations. Understandably, states could be expected to take a cautious approach in their negotiating strategies, including on the desired progression of steps and the risk that one or more parties could defect from the agreement. South Korea and the United States would be especially sensitive to North Korean negotiating gambits aimed at splitting the allies. Negotiators would also be attuned to the risks of hostage-taking during negotiations, in which a state might seek additional concessions in one domain while blocking progress in the other. The need to sustain momentum and to implement a complex agreement could argue for a progression of discrete steps – whether reciprocal in the same domain or across domains. Lastly, negotiations would need to consider whether agreed steps might inadvertently lead to the development of offsetting capabilities or create new escalation risks, especially if negotiations reached the stage of structural restraints.

These considerations suggest two organisational approaches to a comprehensive arms-control negotiation: soft linkage and hard linkage. A soft-linkage approach would effectively enable negotiators to mix and match between different types of arms-control measures to compose agreements across both domains. For example, an initial agreement might include a conventional operational restraint (such as moving artillery 50 kilometres from the DMZ) paired with a strategic procedural step (such as declaring stocks of dual-capable missiles with ranges of up to 1,550 km). In a soft-linkage approach, negotiations could proceed in parallel in the strategic and conventional tracks with less requirement for tight coordination between them, although interim agreements – waypoints – would be necessary to mitigate hostage-taking and purposeful delays in implementation.

In contrast, a hard-linkage approach would bind the negotiations in both domains in more direct ways, by stipulating the agreement of measures within each arms-control type. That is, an interim agreement could



Table 2: Options for comprehensive arms control

| Type of negotiation                       | Track        | Behavioural measures   | Operational measures   | Procedural measures  | Structural measures  |
|---|--------------|--|--|--|--|
| Soft linkage: mixed sequential            | Conventional | <ul style="list-style-type: none"> <li>• New confidence-building measures, such as monitoring of border agreements</li> <li>• Establishment of inter-Korean crisis-management committee</li> <li>• Non-aggression agreement</li> </ul>   | <ul style="list-style-type: none"> <li>• Artillery redeployments</li> <li>• Withdrawal of offensive weapons (170/240 mm artillery)</li> <li>• No forward deployment of new weapons (such as North Korea's KN-23 ballistic missile) south of Pyongyang</li> </ul> | <ul style="list-style-type: none"> <li>• Revitalisation of Neutral Nations Supervisory Commission</li> <li>• Notification of brigade-level military exercises</li> </ul>   | <ul style="list-style-type: none"> <li>• Disarming of military facilities in the DMZ</li> <li>• Ceiling on active-service personnel (excluding US Forces Korea)</li> <li>• Ceiling on reserve and paramilitary units</li> <li>• Freeze/reduction of rear-area infiltration force</li> <li>• No production of new weapons (such as North Korea's KN-23 and KN-25 ballistic missiles)</li> </ul> |
|   | Strategic    | <ul style="list-style-type: none"> <li>• No-first-use and/or sole-purpose declaration (without exceptions such as North Korean nuclear-weapons use against allies of nuclear-weapons states)</li> <li>• Agreement on no nuclear threats</li> <li>• Negative security assurances</li> </ul> | <ul style="list-style-type: none"> <li>• Dual-capable missile de-mating and non-alert agreement (storing launchers, airframes and warheads separately)</li> </ul>  | <ul style="list-style-type: none"> <li>• Declarations, fissile-material production freeze and transparency at Yongbyon nuclear facility</li> </ul>   | <ul style="list-style-type: none"> <li>• Biological- and chemical-weapons elimination</li> <li>• Destruction of strategic assets</li> <li>• Dual-capable missile-production freeze</li> </ul>  |
| Hard linkage: symmetrical and progressive | Conventional | 1. North Korea–South Korea military-stability talks  | 2. Artillery/multiple-rocket-launcher limitation zone  | 3a. Declaration of artillery pieces/locations within agreed limit<br>3b. Transparency measures (such as overflights) to confirm artillery exclusion  | 4a. Ceilings on artillery/multiple-rocket-launcher systems<br>4b. Change in composition of US Forces Korea   |
|   | Strategic    | 1. US–North Korea nuclear-stability talks  | 2. Nuclear non-operational deployment agreement and cessation of military exercises involving nuclear forces (or dual-capable missiles) on the Korean Peninsula  | 3a. North and South Korean declarations of arsenals of dual-capable missiles with ranges up to 1,550 km<br>3b. Transparency visits to South and North Korean missile-operating bases (potentially also US air or naval bases in theatre) | 4a. Ceilings on North and South Korean dual-capable missiles<br>4b. Ceilings on missile-defence interceptors   |

comprise reciprocal steps in both the strategic and conventional domains, such as parallel agreements for conventional- and strategic-stability talks. This approach could be similar to the 'action for action' principle used during the Six-Party Talks. In a hard-linkage approach, there would need to be tighter coordination between the negotiations in both tracks, given that there might be synergies to exploit or offsets to avoid.

In either the soft- or hard-linkage approach, progression and sequencing would be key considerations: how to build, step by step, toward structural arms-control measures. In a soft approach, negotiators might adopt the 'one-for-one' principle, necessitating that each interim step comprise one conventional and one strategic measure. The flexibility in this approach may expedite progress, yet could make coordination between domains more difficult. In a hard approach, negotiators might attempt to sequence a series of agreements driven by a prescriptive logic: for instance, from behavioural, to operational, to procedural and finally to structural. A progressive approach like this could reduce flexibility, yet a narrower scope for negotiations might mitigate the potential for hostage-taking. In light of past divergence in North and South Korean approaches to arms-control negotiations, one consideration in a progressive approach is the likelihood of different views about the starting point for negotiations, with North Korea tending to focus on the downgrading of US Forces Korea and South Korea on initial trust-building steps.

### **Inevitable negotiating challenges**

Although a comprehensive arms-control approach to the Korean Peninsula may be better aligned with the current strategic environment, it would still be logistically and politically challenging. The sheer complexity of the effort, not to mention the likelihood of drawn-out negotiations that would span changes of political administration in South Korea and the United States, might doom a comprehensive approach from the outset. Furthermore, US and South Korean domestic politics would likely be thorny, given the implicit legitimacy an arms-control negotiation would give North Korea as a possessor of nuclear weapons. Conservative South Koreans who believe North Korea is attempting to push US forces off the Korean Peninsula and to break

up the South Korea–US alliance would be critical of any steps perceived as unequal or unfavourable to South Korean interests. The denuclearisation precondition could cast a shadow over the proceedings, given that many South Koreans and Americans would object to any plan under which North Korea was not required to at least promise to completely give up nuclear weapons. Navigating this political landscape would require the South Korean government to engage in a two-level game, countering a conservative coalition of politicians and defence scholars at the domestic level while simultaneously minimising the adverse effects during negotiations with North Korea. Washington also has no shortage of North Korea hawks who would object to any concessions as rewarding North Korea's bad behaviour; they might characterise a process requiring reciprocal restraints by the United States as appeasement. The US administration would also face concerns from Japan that arms-control steps affecting the US military posture in Northeast Asia might diminish the credibility of American defence commitments to Tokyo.

In addition to these notable political challenges, five other challenges would arise during the negotiations themselves. Firstly, perceptions of the military balance among the two Koreas and the United States would be crucial in successfully linking constraints across the conventional and strategic domains. Diverging perceptions arising from asymmetries of information would make it difficult for the parties to develop a shared understanding of capabilities at the necessary level of granularity. Presumably, North Korean assessments of American and South Korean military strengths are skewed by the country's comparative lack of independent information-gathering capabilities, while North Korea's opacity makes it something of a 'black hole' for US and South Korean intelligence. Any overestimation of the capabilities of each party would make it difficult to identify reciprocal steps that could be agreed to without engendering concerns of vulnerability. Concerns about cheating to preserve certain capabilities or advantages would also be prevalent yet difficult to assuage, especially given the relatively infrequent and episodic interactions between the countries that have precluded the development of common means of resolving disputes arising from information asymmetries.

Not only perceptions but also actual differences in the military balance will pose a further challenge for negotiators to manage. There are broad gulfs

– both quantitative and qualitative – in capability among the parties. These disparities are likely to result in disputes over demands for disproportionate actions. Notably, North Korea has a far larger standing army than South Korea – 1.28 million vs 555,000, according to one estimate<sup>30</sup> – and also enjoys advantages in certain categories of armament. However, obsolescence, a lack of spare parts and basic under-resourcing in North Korea’s military suggest that simple quantitative approaches to maintaining a military balance would not be sufficient. Both Koreas are implementing military-modernisation programmes, which means the military balance will be a moving target, and both sides may be reluctant to accept constraints on modernised equipment.

Secondly, there are considerations related to deterrence and the role of weapons systems that have denial or punitive characteristics. Presumably, North Korea would be reluctant to accept operational and structural restraints on its multiple-rocket-launch systems and

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*Arms control would  
not necessarily  
compromise deterrence*

ballistic missiles, for example, both of which are central to its deterrence-by-punishment strategy. Similarly, South Korea is fielding conventional-strike missiles for pre-emption alongside missile defences, both of which support deterrence by denial. (South Korea also has a punitive leadership-decapitation strategy involving large conventional ordnance.) Whether South Korea and North Korea would be willing to trade reductions in denial capabilities for reductions in punitive capabilities is the type of proposition to be tested in a comprehensive negotiation. If the parties were committed to reducing the potential for conflict escalation and fears of surprise attack, this type of reciprocal constraint could be possible.

Thirdly, reciprocity will be an important element of any agreement. In some instances, reciprocal and equal limits might apply. In others, the limits could be designed to permit some level of asymmetry in similar capabilities or to create a relationship between different types of systems. Proceeding with an arms-control process would not necessarily mean compromising national security or deterrence. Rather, it could be designed to allow the parties to retain sufficient deterrence, particularly in early phases before developing

greater confidence in each other not to seek gains by violating agreements. It would be ideal to focus limitations mainly on punitive capabilities to reduce threat levels, but it may be difficult to distinguish clearly between punitive and denial capabilities. For example, South Korea's precision-strike missiles could serve to interdict a North Korean nuclear attack and to execute decapitation operations. Should South Korea retain some of these capabilities for deterrence, this would encourage North Korea to maintain similar capabilities for its own deterrence purposes. Permissible hedging therefore is likely to be a necessary feature of an arms-control framework. To find a balance between maintaining deterrence and sustaining arms control, negotiators could consider various equilibriums of capability that would enable the two Koreas to have confidence in the sufficiency of their forces.

The tit-for-tat arms developments between the two Koreas show how the search for offsets can feed an arms race. For example, North Korea has built a surface-effect ship equipped with a rocket launcher, torpedo tubes and surface-to-air missiles to quickly deliver assault troops to occupy South Korean border islands, as well as very slender vessels capable of carrying special forces to infiltrate South Korean territory.<sup>31</sup> North Korea is also believed to be capable of weaponising some 20 biological and chemical agents such as anthrax, mustard, chlorine, sarin and V-series nerve agents.<sup>32</sup> These are capabilities that do not have obvious analogues in South Korea. In the cyber domain, North Korea can exploit weaknesses in South Korea's defence of its vast digital infrastructure while itself being relatively secure given its limited internet capacity and low level of digitisation. These types of asymmetric capabilities and vulnerabilities may pose distinct challenges to arms control.

Fourthly, although it would be exceedingly difficult to factor asymmetric capabilities into an assessment of military balance, there could be value in agreeing to certain principles, such as non-possession or non-use during peacetime. Eventually, North Korea would need to join the Chemical Weapons Convention and demonstrate compliance with its commitments under the Biological and Toxin Weapons Convention, and accommodate verification procedures. Therefore, North Korea could first declare that it would not possess chemical and biological weapons by a certain date and agree to destroy them in the presence of international observers. These

actions could be sequenced with the implementation of a peace regime. Previously, addressing North Korea's chemical- and biological-weapons capability, which poses a clear and demonstrated asymmetric threat to allied forces, was notably missing from both the inter-Korean arms-control discussions and multilateral nuclear negotiations. Many South Koreans were anxious about this missing piece in the arms-control agenda, yet officials clearly feared that efforts to raise such asymmetric capabilities in the talks could discourage North Korea from negotiating on nuclear and conventional restraints, or incentivise the North to demand more quid pro quos. However, if such capabilities are left outside the scope of negotiations, they could develop into a new conflict domain.

The question of how to restructure and modernise their military forces is likely to be a major concern for both Koreas. Recent South Korean defence initiatives aim not only at increasing deterrence capabilities against North Korea's threats, but also at upgrading the nation's overall capabilities to build a more effective military force that can withstand future uncertainties in the region. Force-improvement programmes mandating an average annual defence-budget increase of 7.2% under the 2021–2025 Mid-term Defense Plan are intertwined with the goal of exercising wartime operational control. This goal requires South Korea to have core military capabilities to lead a combined defence force.<sup>33</sup> Some programmes, such as the cyber-threat response system, combat-drone system, reconnaissance-aviation group and naval strategic-manoeuving capabilities, have multiple purposes. Because not all of Seoul's defence-reform efforts are tied directly to threats from North Korea, trading away newly acquired capabilities as part of an arms-control regime would concern not only South Korea but also the US, which desires South Korea's active participation in broader security efforts in the Indo-Pacific region. Pyongyang is also pursuing military modernisation and, like Seoul, is likely to see its modernised systems as integral to its security in the future, rather than as bargaining chips. Considering the huge sunk costs involved and the two Koreas' stances on military modernisation, it is plausible that both will insist on retaining vital modern weapons systems, which will necessarily hamper the effectiveness of a potential arms-control framework.

Finally, increasing transparency and verifying compliance are essential to the success of any agreements, but have often been a source of disruption in past negotiations with North Korea. In the 1990s, Pyongyang offered several proposals for mutual inspections between the two Koreas, presumably because this would have permitted access not only to South Korean military bases but also to US Forces Korea bases. However, disagreement about reciprocal inspections, especially on the proportionality of inspection sites, scope and the time between advance notice and inspection, led to a stalemate.<sup>34</sup> In the 2000s, North Korea rejected the US-proposed sequencing of nuclear-verification procedures and tried to link verification to other demands, such as a legally binding non-aggression pact with the United States. These ultimately led to the breakdown of the Six-Party Talks in 2008–09.<sup>35</sup>

A framework that links conventional-military and strategic capabilities will require larger numbers and types of sites to be subject to inspection and verification. It would also rely on a far wider array of information that could be gleaned through monitoring and verification. However, a benefit of the linkage approach is that it would formalise opportunities for deal-making across domains and locations. For example, negotiators could discuss a trade of US and South Korean inspections at a North Korean missile-operating base for North Korean inspections at a US Forces Korea base. North Koreans could also be presented with opportunities, such as more autonomous means to monitor developments in the region, so that they could see verification as worth exploring.

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Negotiating arms control with North Korea is an idea still well outside the policy consensus in Washington and Seoul, not least because of the ‘recognition’ issue: some believe that North Korea should not be recognised or accepted as a nuclear-weapons possessor. As one unnamed senior Biden administration official argued, ‘There is an extraordinarily strong global consensus ... that [North Korea] should not, and must not, be a nuclear nation. No country is calling for this ... The consequences of changing

policy, I think would be profoundly negative.<sup>36</sup> Yet North Korea possesses dozens of nuclear weapons, and there is strong support for acquiring nuclear weapons in South Korea.<sup>37</sup> It is debatable whether the consequences of policy change could be any worse than those of three decades of failed non-proliferation efforts.

Admittedly, comprehensive arms control may be conceptually plausible but practically impossible. Negotiators would have to thread a very fine needle, especially on reciprocal measures. What could North Korea ask for that would be acceptable to Seoul and Tokyo because it did not weaken US extended deterrence, would not impact Washington's strategic deterrence of China and Russia, and would be politically saleable in Washington? Perhaps it is a null set. But that could only be determined through credible and sustained efforts by the governments to explore the range of possible outcomes.

It is reasonable to expect that North Korea will continue to possess nuclear arms. Short of a devastating war, there are no apparent means of coercing the country to give them up. Therefore, it is worth considering arms control as a policy alternative to denuclearisation. At the very least, pursuing arms control is no more likely to fail than past approaches, and may be beneficial for peace and security in Northeast Asia.

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