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SPECIAL SECTION – ALLIANCES AND ALIGNMENTS IN EUROPE AND THE ASIA-PACIFIC

US EXTENDED NUCLEAR DETERRENCE IN EUROPE AND EAST ASIA: A COMPARATIVE ANALYSIS

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Introduction

Analysing the alliance system in Europe and Asia in a comparative perspective also demands having a look at the specific role of nuclear weapons in the defence doctrines, and more in particular at the role of US extended nuclear deterrence. The main question that this article wants to resolve is: what are the similarities and differences in both regions with respect to extended nuclear deterrence? This (comparative) descriptive analysis is complimented with the following predictive question: which trends in both regions make it likely that extended nuclear deterrence will be strengthened, weakened, or maybe completely disappear? To answer these questions, the following structure will be followed: first, the concept of extended nuclear deterrence will be described; next, this concept of extended nuclear deterrence will be applied to Europe and Asia; lastly, three trends that have an impact on the current debate on extended nuclear deterrence are analysed: (1) the deteriorating security situation; (2) the changing balance of power, and more in particular the relative decline of the US and the rise of China; and (3) the evolving nuclear arms control and disarmament regime, including the arrival of the Treaty on the Prohibition of Nuclear Weapons (TPNW).

Extended nuclear deterrence

Extended nuclear deterrence is a security mechanism that aims to protect one or more countries (the protégés) by the nuclear deterrent of the allied nuclear armed state (the protector). Extended nuclear deterrence – usually visualised as an umbrella – comes in two formats: in the form of a security guarantee with strategic nuclear weapons stationed on the territory of the protector (or at sea), or in the form of tactical nuclear weapons of the protector stationed on the territory of the protégé. The latter also comes in two versions: either with or without nuclear sharing, meaning that the protégé could or could not use these weapons in time of war according to the rules of procedures agreed in peacetime. Underlying extended nuclear deterrence is an alliance (collective defence) commitment, of which the core consists of the security guarantee that if one member of the alliance is attacked, the other members will help to defend the attacked country.

Extended nuclear deterrence is at the same time a particular form of nuclear deterrence in general. Due to the destructiveness of those weapons, advocates of nuclear weapons believe in the efficacy and therefore the credibility of the threat of using nuclear weapons.¹ Interestingly, the same argument is used by the opponents to criticise the concept of nuclear deterrence. Nuclear weapons are simply too destructive to be used, according to this logic.² T.V. Paul seems to agree: “The difficulty with a nuclear deterrent is in translating capability into credible deterrent threats and in the constraints in committing one’s capability for anything other than the supreme interests of a state such as national survival. But such existential threats are nearly absent today”.³ According to Paul, that is also the reason why nuclear weapons have not been used since 1945. Others relate the tradition of non-use to the anti-nuclear norm, also called the ‘nuclear taboo’.⁴ Deterrence adepts, in contrast, claim that nuclear weapons have not been used since 1945 because nuclear deterrence works.

There is a greater consensus over the idea that threatening to use one’s own nuclear weapons in the event that another state is attacked, in which case one’s own territory could be attacked in a retaliatory strike while one’s own vital interests were originally not at stake, is not very credible, or at least less credible than trying to deter an attack against one’s own territory. In short, extended nuclear deterrence is perceived as being less credible than nuclear deterrence in general. Thomas Schelling pointed out: “The difference between national homeland and everything

‘abroad’ is the difference between threats that are inherently credible, even if unspoken, and the threats that have to be made credible”.⁵ Henry Kissinger warned in a speech at NATO HQ as early as the 1970s: “European allies should not keep asking us to multiply strategic assurances that we cannot possibly mean or if we do mean, we should not want to execute because if we execute we risk the destruction of civilization”.⁶ In his standard work on nuclear deterrence Patrick Morgan concurs: “One of the perpetual problems of deterrence on behalf of third parties is that the costs a state is willing to bear are usually much less than if its own territory is at stake, and it is very difficult to pretend otherwise”.⁷ A more recent book volume on US extended nuclear deterrence (with both advocates and opponents of nuclear weapons) concluded that “the nuclear dimension of extended deterrence can be quite problematic and controversial from an alliance standpoint”.⁸

Extended nuclear deterrence could in principle be replaced by Extended *Conventional* Deterrence, which may be more credible than extended nuclear deterrence according to its critics.⁹ The concept of conventional (extended) deterrence is also becoming more popular with the arrival of the so-called new weapons systems like hypersonic weapons, and long-range precision weapons.¹⁰ Mount and Vaddi explain that the integrated deterrence review of the Biden administration, comprising more than just nuclear weapons, “should inform allies how the United States is reducing its reliance on nuclear weapons while meeting its extended deterrence guarantees, how those changes make allies more secure, and should explore any alliance-specific measures that should accompany these changes”.¹¹

That said, the security doctrines of the US and their allies still rely on extended *nuclear* deterrence. One explanation for the endurance of extended nuclear deterrence despite its questionable credibility is the fact that it has also a role in reassuring the protégé on top of the deterrence function.¹² Extended nuclear deterrence has two related but different functions: deterrence and reassurance. “Extended deterrence is intended to prevent aggression and coercion by adversaries *and to assure allies* that their vital interests will not be jeopardized”.¹³ While the credibility of deterrence is judged in function of the perception of the enemy, reassurance is a concept that focuses on the relationship between protector and protégé.¹⁴

As British Defence Secretary Denis Healey stated in 1989: “it takes only five percent credibility of American retaliation to deter the Russians,

but ninety-five percent credibility to reassure the Europeans”.¹⁵ The extent to which Europeans feel reassured by the US also depends on the overall political relationship between Europe and the US. The latter to a substantial degree depends on the administration and the president. The Europeans were for instance more reassured by President Obama than by President Trump. However, Santoro and Glosserman recommend the US to pay more attention to deterrence than to reassurance.¹⁶

From the protector point of view, extended nuclear deterrence can also be regarded as a non-proliferation instrument. As long as there is extended nuclear deterrence, the protégés will feel less of a need to acquire their own atomic bombs. France and the UK, however, have shown that this is not a golden rule.¹⁷

Differences between extended nuclear deterrence in Europe and East Asia

After the end of the Second World War, the UN-based world order became paralyzed because of the rising geostrategic tensions between the US and the USSR. From 1947 onwards, the world split into two blocs. The Cold War was born. Two years later, the Atlantic Alliance (NATO) – a collective defence organisation – headed by the US was formed. Article 5 of the Washington Treaty states that the member states will help defend each other in case of being attacked. The most likely scenario was an attack by the USSR against Western Europe, in which case the US was obliged to help defend the latter. (In the end, article 5 was triggered only once, ironically to help defend the US after 9/11). Only after West Germany joined NATO in 1955, the Warsaw Pact – NATO’s counterpart – was established. At the time of writing, NATO contains 30 member states, including most of the former Warsaw Pact countries in Central and Eastern Europe.

The US alliance system in East Asia is structurally different from Europe. Instead of establishing a collective defence organisation, the US concluded bilateral alliance commitments – that included extended deterrence – with Japan in 1951 (reinforced in 1960) and with South Korea in 1954. Until the 1980s, however, Japan never talked about ‘an alliance’, but about a bilateral security treaty.¹⁸ While the original threat consisted of the USSR and China, over time also North Korea put itself on the regional security agenda, and not only vis-à-vis South Korea, as the launch of North Korean missiles over Japan – like the Taepo Dong in August

1998 – testifies. The 1998 launch sent “shivers up just about every Japanese spine”, as Mataka Kamiya observed.¹⁹

With regard to the nuclear dimension and more in particular the notion of extended nuclear deterrence, the core question in Europe was: would the US be prepared to intervene militarily should only the European allies be attacked by the USSR? The latter became even more problematic once the USSR acquired in the 1980s (nuclear-armed) intercontinental missiles that could be used in a retaliatory strike against the territory of the US. As a result, a conventional attack by the USSR against Western Europe could easily trigger a global nuclear war. Because of the controversial nature of nuclear weapons and more in particular their immense destructive capacity, that debate was and still is highly politically sensitive, especially in Western Europe. On the one hand, the allies appreciated the US security guarantee, be it in whatever form. On the other hand, the credibility of the nuclear deterrent was questioned as it was hard to believe that the US would help its allies out as the risk existed that the armed conflict would escalate to a nuclear attack against the US. In case deterrence failed, the territory of the allied countries would be the location of a (nuclear) war fought by the US and the USSR.

That sensitivity, together with the general opposition against nuclear weapons, is also the reason why extended nuclear deterrence was not made explicit in the first years of NATO's existence. Denmark prevented the mentioning of nuclear weapons in the Washington Treaty as well as in the first two (secret) NATO Strategic Concepts.²⁰ It was only in NATO's third Strategic Concept in 1957 that nuclear weapons were explicitly mentioned.

At the NATO Summit in Paris in the same year, NATO went a step further by agreeing with the instalment of US tactical nuclear weapons on Europe's territory in order to compensate for its conventional inferiority vis-à-vis the USSR and the Warsaw Pact. From a US point of view, it would also prevent horizontal nuclear proliferation. Secret bilateral nuclear sharing agreements were arranged between the US and Belgium, the Netherlands, Germany, the UK, Italy, Turkey, and Greece. In times of peace, these states would 'host' US tactical nuclear weapons. In time of war, the weapons could be used by local pilots and aircrafts after a decision by the US and NATO. In 1966, the NATO Nuclear Planning Group (NPG) was established to consult each other on nuclear weapons related issues. All NATO member states belong to the NPG, except France.

At the height of the Cold War, some 7,000 tactical nuclear weapons were installed in Europe. After the Cold War, the numbers as well as the types were substantially reduced, predominantly because of unilateral/reciprocal decisions by President Gorbachev and President Bush Sr on account of the so-called Presidential Nuclear Initiatives.²¹ Since the 1990s, there has been only one type of tactical nuclear weapon left: the B-61 free-fall bombs. Hans Kristensen (Federation of American Scientists) explains the intricacies of the decision-making process: “NATO did not get to today’s dramatically reduced nonstrategic nuclear forces level because it adhered to the status quo or worried about disparity and surrendered the initiative to Cold Warriors in the Kremlin, but because *political leadership* ignored worst-case planners and former officials who argued against change”.²² According to the Federation of American Scientists, there are currently 100 B-61 bombs left in Europe.²³ The weapons were withdrawn from Greece in 2001, and the Turkish aircraft and pilots are not nuclear-certified anymore.²⁴ The B-61 bombs are supposed to be modernised from 2022 onwards, and are also supposed to be carried by the F-35s that will replace the F-16s.

As there is no institutionalised alliance system in East Asia, there is no NPG or a comparable institution. Extended nuclear deterrence exists in Asia on a bilateral basis. For Japan, given the atomic bombings on Hiroshima and Nagasaki, US extended nuclear deterrence is – from a domestic political point of view – the only option to have a nuclear guarantee. Although nuclear weapons are not mentioned in the Japanese constitution, “they are usually considered to be offensive weapons and would therefore be forbidden”.²⁵ The Diet also adopted a law in 1955 that states that atomic energy could only be used for civilian purposes. The US positioned some nuclear weapons on US military bases in Japan, more in particular in Okinawa (that was considered under US control until 1972).²⁶ Following the US–Japan alliance treaty in 1960, Japan obtained a veto over the deployment of US nuclear weapons on its territory, and consequently refused further deployments. Secretly, however, the Japanese government agreed with visits of US nuclear-armed ships to Japanese ports.²⁷ In 1967, the Japanese government also revised this policy and announced a policy of the so-called ‘Three Non-Nuclear Principles’ (no possession, no manufacture, and no introduction into Japanese territory), despite the fact that China had tested nuclear weapons three years earlier. But another secret agreement between President Nixon and Prime Minister Sato stated that US nuclear weapons could be re-introduced in Okinawa in times of emergency, as leaked to the public in 1994.²⁸

At the end of the 1960s, the US also convinced Japan to sign the Nuclear Non-proliferation Treaty (NPT) as a non-nuclear weapon state, which it

did in 1970. “Many Japanese leaders, however, saw the treaty as fundamentally unfair in its basic charter”.²⁹ It took six years for Japan to ratify the NPT. However, “for the most part, politicians and policymakers believed that refusing to ratify the NPT was unthinkable due to the rift it would cause with the United States”.³⁰ Extended nuclear deterrence helped – although more with respect to reassurance than to deterrence – to canalise these frustrations. “The extended nuclear deterrence offered and continues to offer a neat and practical solution” for Japan, according to Fintan Hoey.³¹ “It keeps nuclear weapons away from view and from public consciousness, while also acting as a guarantor of Japan’s security and a deterrent against nuclear attack and/or blackmail”.³² Rublee concludes: “These reassurances, which the United States has continued to provide, serve two purposes: to satisfy moderate policymakers who want to focus on trade and diplomacy instead of military build-ups, and to placate right-wing politicians who prefer an independent Japanese military”.³³

A similar logic applies to South Korea, where the US had stationed nuclear weapons – much longer and with much less controversy than in Japan – from 1958 until 1991. These weapons, however, could not have been used by South Korea in contrast to the host nations in Europe, as there was no nuclear sharing agreement between South Korea and the US. When the NPT was signed by Seoul in 1968, the government stated that it depended on robust US security commitments, including extended nuclear deterrence.³⁴ Like Japan, it took until 1975 to ratify the NPT.

The impact of three global trends on extended nuclear deterrence

With respect to the external environment, three dimensions can be distinguished: the deteriorating security situation in the world; the changing balance of power in the world; and the nuclear arms control and disarmament regime that is in disarray. It is likely that all three will have an impact on the future of extended nuclear deterrence, be it sometimes in opposite directions.

Deteriorating security situation in the world

Over the last fifteen years, in both Europe and East Asia, the security threat is perceived to be growing, respectively in the form of a more assertive or even aggressive Russia (especially since the take-over of the Crimea in

2014 and even more the war since February 2022), nuclear tests by North Korea since 2006 and a more self-confident and assertive China, especially since the arrival of President Xi Jinping in 2012. In Europe, that perception is – for geographical and historical reasons – much more present in the Central and Eastern European states, especially in the Baltic States and Poland, than in Western Europe. It is also less present in Southern Europe that in its turn struggles with migration, extremism, and terrorism as a result of the wars in the Middle East and Northern Africa.

What has been the impact of the deteriorating security situation on extended nuclear deterrence in Europe? It can be argued that NATO was on a path towards gradual denuclearisation before 2014, for instance with unilateral force structure reductions as well as alert-levels substantially going down in the 2000s.³⁵ In the NATO Defence and Deterrence Posture Review (DDPR) in 2012 an opening was made – under pressure from Germany – to question the nuclear sharing practices.³⁶ In addition, the US Air Force ‘never liked [the nuclear-sharing] mission’.³⁷ That said, the DDPR did not lead to major changes. In short, there have been opportunities missed in the past to adapt NATO’s nuclear posture, for instance in the period 2009–2012 (*before* the Crimea take-over by Russia), which ended up – according to Andreas Wenger – in ‘an incoherent policy’ in NATO.³⁸

The impact of the war in Ukraine on extended nuclear deterrence is straightforward: those allies who feel insecure would like to see extended nuclear deterrence being kept or even strengthened. As a result, Central and Eastern European NATO allies are blocking any debate about a possible (further) withdrawal of the remaining B-61 bombs from Western Europe. They neither prefer a change in declaratory policy in the direction of a no first use or sole purpose doctrine. There are even voices that ask for stationing US tactical nuclear weapons in Poland, possibly relocating them from Western Europe.³⁹ In the host nations in Western Europe, in contrast, there is not much willingness to keep these bombs, certainly not at the level of the public. In 2020, Rolf Mützenich, leader of the Social-Democrats (SPD) in the German parliament, proposed to send them back. These differences of view amongst European NATO members complicate the internal debate in the Alliance. The result is more or less a status-quo in NATO’s nuclear weapons policy, with a slight increase of the alert-levels and a slight decrease in the force structure since 2016. Roberts concludes that “the commitment to the role of nuclear weapons in the alliance’s deterrence strategy in the new security environment is essentially uncontested”.⁴⁰ Thanks to the war in Ukraine, a similar

result is expected in the NATO Strategic Concept that is supposed to be adopted at the NATO Summit in Madrid in June 2022.⁴¹

Because of the deteriorating security situation in East Asia, and more particularly as a result of North Korea and China, there is also a growing demand in Japan and South Korea to strengthen extended nuclear deterrence, including the demand in South Korea to re-introduce US tactical nuclear weapons. After North Korea left the NPT and tested nuclear weapons, in 2003 and 2006 respectively, South Korean voices in favour of strengthening extended nuclear deterrence or even acquiring an independent atomic bomb, also supported by a growing number of South Korean citizens, grew. The US, however, has always tried to reassure both South Korea and Japan, for instance right after North Korea's first nuclear tests, by other means. The uncertainty, however, remains, especially since North Korea is developing long-range missiles that may be able to reach the continental US. In 2017, members of the South Korean government party (LKP) visited Washington to explore the option of re-introducing tactical nuclear weapons, and the South Korean Defence Minister (from the progressive party) agreed the same year that "the redeployment of tactical nuclear weapons is an alternative worth a full review".⁴² The US, however, is not in favour. Even US advocates of extended nuclear deterrence, like Brad Roberts, argues that the re-introduction of tactical nuclear weapons in South Korea "would be unhelpful."⁴³ It would significantly erode the political pressure on North Korea to denuclearise, increase nuclear targeting of South Korea by the North, and *add little to either the deterrence of the North or the assurance of the South*". The Biden administration has repeated that it is not in favour of re-introducing tactical nuclear weapons in South Korea.⁴⁴ The war in Ukraine further increased the demand for re-introducing US tactical nuclear weapons.

The Japanese national security advisor Akiba Takeo has publicly stated that he would be in favour of building storage facilities for US nuclear weapons.⁴⁵ Due to the deteriorating security situation, Japanese officials have also spoken out against a US no first use policy, an option that was explored by the Obama administration in 2016. In 2022, former Prime Minister Abe raised the issue of hosting US nuclear weapons as a result of the aggression of Russia against Ukraine, fearing that China may behave similarly in East Asia. The Japanese government, however, immediately dismissed the idea.⁴⁶

Alternative ideas to strengthen extended nuclear deterrence are proposed, like setting up nuclear planning groups with South Korea and Japan (as in

NATO), and exploring the possibility of nuclear sharing in war-time.⁴⁷ The Obama administration introduced a so-called Extended Deterrence Dialogue with Japan and South Korea in 2010.

To conclude, the deteriorating security situation in all likelihood will create further pressure to strengthen extended nuclear deterrence, both in Europe and East Asia.

The changing balance of power in the world

In addition to the increased threat perception in most of the allied states, there is the general recognition that the overall power of the US – their protector – is diminishing, at least in comparison with China. The rise of China is obviously more felt in East Asia than in Europe. Despite ‘the pivot to Asia’ announced in 2012 by the Obama administration, the general mood in countries like Japan and South Korea is that they will have to care more about their own security. That is even more the case because of the isolationist and transactional policy of the Trump – and to a lesser extent Biden – administration. The withdrawal from Afghanistan by President Biden in the Summer of 2021 is regarded as another manifestation of US ‘restraint’.⁴⁸ All this leads to strengthening the inherent fear of abandonment by the allied states in East Asia, a classic dilemma in alliances.⁴⁹ The difference between Tokyo and Seoul is that South Korea – like most states in the region – does not want to be obliged to choose between the US and China, while Japan is still more on the side of the US.⁵⁰

In Europe, the EU has also changed its engagement policy to seeing China at the same time as a trading partner, competitor and sometimes even a rival, as per the European Commission’s formulation in 2019. Obviously, the US “pivot to Asia” is felt more negatively in Europe than in East Asia. Together with the unilateralist policy of the Bush Jr and Trump administration as well as the isolationist policy of the Trump (and to a lesser extent Biden) administration, the perception in most allied states in Europe is that US power and the related security guarantee is weakening. Luckily for Europe, the power of Russia was also weakening, especially economically and demographically, already before the start of the war. This trend will in all likelihood be strengthened because of the war as a result of the severe economic sanctions.

The impact of the changing balance of power on extended nuclear deterrence is not straightforward. On the one hand, protégés would like to

continue or even strengthen extended nuclear deterrence, certainly given the increased threat perception (see before). On the other hand, more and more experts and politicians both in Europe and East Asia are in favour of hedging, arguing that it is time to strengthen one's own security, regardless of the existing alliance with the US. Some US experts seem to agree, even from a US point of view. Brands and Edelman, for instance, claim that the strategy of extended deterrence "carries an enormous risk that at some point those guarantees will, in fact, be tested and found wanting, with devastating effects on America's reputation and credibility ... Along the way, a strategy of bluff would likely weaken deterrence and reassurance on the instalment plan, as allies and adversaries perceive a shifting balance of power and understand that U.S. guarantees are increasingly chimerical. The United States could therefore end up with both the destabilizing consequences of retrenchment".⁵¹

In Europe, the change in the global balance of power accelerated the debate about European 'strategic autonomy',⁵² which is about foreign policy and only in second order about defence policy, let alone nuclear weapons policy. The fact that the advocates of 'strategic autonomy' have not yet won the debate has to do with the reluctance on the part of the Central and Eastern European states and to a lesser extent Germany. Both the Obama and Trump administrations were successful in convincing many (but not all) of the European NATO members to spend more on defence, as was promised at the NATO Summit in Wales in 2014. Putin's aggression did convince those states that had not raised their defence budgets significantly yet.

Although the debate about a so-called Eurobomb got a boost in Germany after the election of President Trump⁵³, the idea remains fairly unpopular, certainly in government circles.⁵⁴ There were even fewer voices arguing for a German bomb.⁵⁵ That said, the more the EU integrates, the bigger the chance that the EU will indeed end up with a kind of European army. It remains to be seen whether and how the French nuclear weapons in that case will be Europeanized. Interestingly, the possible withdrawal of the US tactical nuclear weapons from Europe may speed up the debate about a Eurobomb, except if the Treaty on the Prohibition of Nuclear Weapons (TPNW) gets more traction in Western Europe (see below). The younger, more nationalist elites may end up pushing for replacing US nuclear sharing with a Eurobomb.

As there exists no supranational integration project in East Asia, states like Japan and South Korea have to rely on themselves, especially in times

when alliances are perceived as becoming weaker. As a result, both states, but especially South Korea, are increasing their defence budgets: Japan is spending close to 1 percent of its GNP, which in absolute numbers corresponds to \$49 bn. South Korea spends close to 2.5 percent of its GNP, also under pressure by President Trump who threatened to remove all US troops from South Korea.⁵⁶ Both countries are also building up their conventional forces, including ballistic missiles and submarines in the case of South Korea, as well as missile defence and space capabilities.⁵⁷ Japan also joined the Quad alignment with India, Japan and Australia.

As part of this hedging behaviour, the call in Japan but especially in South Korea for having one's own atomic bomb – which is not new – is growing, in addition to the idea of re-introducing US tactical nuclear weapons in South Korea (see above). In the 1970s, South Korea had a secret nuclear weapons programme, possibly triggered by Nixon's decision to reduce US forces in the country.⁵⁸ The US coerced Seoul at that time to stop the programme and threatened to end the overall bilateral alliance.⁵⁹ South Korea gave in and ratified the NPT as a non-nuclear weapon state in 1975, as stated above. The current debate about acquiring nuclear weapons is more intense in South Korea than in Japan, both because of the North Korean threat and because of the historical legacy of Hiroshima and Nagasaki.⁶⁰

Remarkably, both the Bush Jr administration and Trump as a presidential candidate have stated that they could live with a nuclear Japan.⁶¹ According to Heginbotham and Samuels, “Washington might ... feel compelled to acquiesce to Korea's nuclear-weapon status, as it did with Israel, India, Pakistan, and North Korea”.⁶² Jennifer Lind and Daryl Press – two other US academics – are also in favour, adding that “U.S. leaders may decide to give Seoul the military and diplomatic cover it needs to make nuclearization safe”.⁶³ Lind and Press pose the following question: “in 2025 could the United States afford to keep its alliance commitments to South Korea, if doing so meant triggering nuclear attacks on the U.S. homeland?”, referring to the ICBMs of North Korea.⁶⁴

Although similar voices exist in Japan, for historical reasons it is much more difficult to imagine that Japan would acquire nuclear weapons than South Korea. As Rublee states: “nuclear weapons are the political ‘third rail’ in Japan – any politician who brings up the topic meets with a firestorm of domestic protest and ends up retracting the statement or resigning”.⁶⁵ That said, also in Japan “some mainstream strategists today interrogate the credibility of extended nuclear deterrence. In 2018, for

example, former Defence Minister Ishiba Shigeru – a long-time advocate of Japan’s nuclear latency – suggested ‘the credibility of U.S. extended deterrence ... has to be scrutinized’.⁶⁶ It was not the first time that a high-level Japanese defence official or politician raised the option of building the bomb. Vice Defence Minister Nishimura had done so in 1999, after which he had to resign.⁶⁷

A more aggressive China (for instance against Taiwan), according to Campbell and Sunohara, “could trigger events that could lead to Japan’s deciding to acquire nuclear weapons – especially if the United States had tried but failed to avert or resist a Chinese attack on the island”.⁶⁸ Given the possession of more than sufficient fissile material, Japan could easily and rapidly build a nuclear weapon device (that still needs to be matched with a delivery vehicle). But again, the odds are that the combination of the historical legacy and the existence of extended nuclear deterrence will prevent such a scenario from happening.

Obviously, if either South Korea or Japan goes nuclear, it may impact the other, and it would be the nail in the coffin of extended nuclear deterrence.

To conclude, the changing balance of power in the world may either lead to a strengthening or weakening of extended nuclear deterrence. But the odds are that END will not be weakened in the short and medium term, also taking into account the deteriorating security situation in the world (see above).

The global nuclear arms control and disarmament regime in disarray

There are two opposite trends with respect to nuclear arms control and disarmament. Thanks to the changing balance of power and the (resulting) increased tensions amongst the major states (US, China, Russia), the nuclear arms race seems to be jump-started. All nuclear armed states are modernising their nuclear arsenals. Some of them, like China (and to a lesser extent the UK), are building these up; China also because it had a much smaller nuclear force structure than the US and Russia. The US Department of Defense expects China’s nuclear weapons arsenal to triple to 1,000 nuclear weapons in 2030.⁶⁹ Furthermore, the end of the INF treaty provides that both Russia and the US are free to station land-based intermediate range missiles in each other’s (and China’s) neighbourhoods. At the same time, new weapons systems – like conventional or nuclear armed hypersonic missiles – are being deployed. Arms control is in

tatters: the ABM treaty, the INF treaty (because of non-compliance by Russia), the JCPOA deal, and the Open Skies Treaties have been repudiated by the US, and have not been replaced.⁷⁰ If Trump had been re-elected in 2020, New START would not have been extended either, and for the first time since the beginning of the 1970s, not one bilateral arms control treaty would have been left. One of the first decisions of President Biden was to agree with the Russian demand to extend the New START in February 2021. It remains to be seen what a follow-up New START treaty will look like, and when it will be concluded. The war in Ukraine diminishes the chances for a new arms control agreement significantly.

As a result of the collapse of the arms control regime and the strengthened nuclear rhetoric of the major powers, the odds are that extended nuclear deterrence will not be weakened.

At the same time, there is a trend in the opposite direction as a result of pressure from many non-allied non-nuclear weapon states (mostly of the Non-Aligned Movement) and NGOs worldwide to delegitimize and even ban nuclear weapons in the form of the Treaty on the Prohibition of Nuclear Weapons (TPNW). The latter was negotiated and concluded at the UN in New York by 122 states on 7 July 2017. The Treaty forbids the development, possession, stationing, transfer, testing, but also use and threat of use of nuclear weapons. Nuclear deterrence (including extended nuclear deterrence) doctrines are now regarded as being illegal, at least by those states that have signed (86) and ratified (60) the treaty. The Ban Treaty entered into force in January 2021. If the nuclear armed states and their allies' attitude towards the TPNW does not change, it may have dire consequences for the NPT and the nuclear non-proliferation regime in general.⁷¹ The latter may be the necessary push for countries like South Korea – but also states like Turkey – to jettison extended nuclear deterrence and acquire their own nuclear weapons.

The Humanitarian Initiative and the TPNW can be regarded both as a result of increased democratic pressure from below and as a catalyst for more societal and political debate (at least in democracies), beginning to have a (slight) impact on government circles and policies in US allied states (Sauer and Nardon, 2020).⁷² In the second half of 2021, the new government of Germany and Norway, for instance, decided to be present at the first meeting of states parties of the TPNW in June 2022, albeit as an observer. The latter does not bind them, but is a positive

signal to the TPNW signatory states. A more radical step – later on – would consist of signing and ratifying the TPNW, which automatically means the end of nuclear sharing and extended nuclear deterrence, at least for those allied countries.

Given the promise by the five nuclear weapons states under the NPT to disarm their nuclear weapons (although without a deadline), and given the TPNW, the overall tendency to delegitimize and to reduce the number of nuclear weapons will in all likelihood continue in the future, despite the ongoing modernisations. In this regard, the withdrawal of the US tactical nuclear weapons from Europe is still low-hanging fruit⁷³, and the re-installment of US tactical nuclear weapons in South Korea or the removal of the US tactical nuclear weapons from Western Europe to Poland would go against the tide of history. Extended nuclear deterrence will tend to attract more and more criticism in this regard.

On the other hand, in the European theatre it is apparently very difficult to announce unilateral reductions as one is afraid of being perceived as weak (although many earlier reductions of tactical nuclear weapons have been taken without much fanfare and on a unilateral basis). “Both sides have boxed themselves into positions of not doing anything until the other side does something”, Hans Kristensen argues.⁷⁴

The fact that extended nuclear deterrence remained in existence in Europe after the Cold War also shows that there are other reasons than security – deterrence and reassurance – for maintaining extended nuclear deterrence: responsibility (and risk) sharing within the alliance⁷⁵, and the fear of going against the US. The sharing of responsibilities and risks in an alliance should be divided, as fair as possible. As Michèle Flournoy and Jim Townsend recently warned: “Germany walking away from this vow to share the nuclear burden, this expression of solidarity and risk sharing, strikes at the heart of the trans-Atlantic bargain”.⁷⁶ Further, the alliance system itself makes it very difficult to question decades-old policies, especially if the demand comes from the protégés. Allies in Europe and in Asia do not want to question publicly extended nuclear deterrence because they are afraid that it would hurt their overall political relationship with the US. These arguments – that are completely unrelated to nuclear deterrence and reassurance – seem to carry a lot of weight. The new German government installed in November 2021, for instance, decided to increase the defence budget to 2% of its GNP, and to buy nuclear-capable F-35, thanks to Russia’s war in Ukraine.

To conclude, it is unclear which of the trends with respect to arms control and disarmament will prevail, but the odds are that because of the war in Ukraine extended nuclear deterrence will remain a key element of alliance solidarity.

Conclusion

The concept that is central in this article is extended nuclear deterrence. US extended nuclear deterrence in both Europe and Asia is described in a comparative way. From a security point of view, it is remarkable that extended nuclear deterrence survived the Cold War, both in Europe (in the format of nuclear-sharing) and in Asia (without nuclear-sharing). One explanation is that extended nuclear deterrence fulfils other roles than deterrence and reassurance, more in particular responsibility-sharing.

The extended nuclear deterrence debate is currently influenced by three opposite trends. The first trend is the deteriorating security situation in both regions, especially because of Russia's attack against Ukraine in 2022, which points to a strengthening of extended nuclear deterrence. The second is the changing balance of power in the world, in particular the rise of China and the relative decline of the US. This trend may either maintain extended nuclear deterrence or replace extended nuclear deterrence with the acquisition of one's own nuclear weapons, particularly in South Korea (and, although less likely, in the EU). A final trend is the changing nuclear arms control and disarmament regime. Here, a distinction should be made between the collapse of the arms control regime, which points to the maintenance of extended nuclear deterrence, and on the other hand the growing pressure for nuclear disarmament in the form of the Humanitarian Initiative and the resulting Treaty on the Prohibition of Nuclear Weapons.

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