The Hague Centre
for Strategic Studies



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## How European defence investments could be leveraged to restart arms control negotiations with Russia

**Paul van Hooft and Davis Ellison**

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# Executive summary

Europeans have a stake in reinvigorating the arms control regime in Europe and bringing Russia back to the negotiating table. They cannot afford to rely and wait on the United States. The brief offers investments that Europeans can make to incentivise Russia to discuss nuclear warhead ceilings, delivery systems, and transparency. Arms control negotiations are not a reward for Russia, nor do they entirely rely on mutual trust, nor do they imply shared values, nor an overall willingness to cooperate, nor do they imply that European support for Ukraine will diminish; arms control negotiations signal shared interests in terms of strategic stability and systemic security. Nothing more, but nothing less.

The Russo-American arms control regime for Europe is in dire straits.[1] The reasons for the regime's decline are both political and technological in nature. Over the past two decades, Russia has invested in more and more advanced missile technology, as well as other military capabilities with applications to the nuclear realm. Most spectacular has been the development of hypersonic weapons, which increase the potential for surprise and evading detection.[2] Regardless of the uncertainty surrounding the operational effectiveness of these capabilities in light of Russia's military performance in Ukraine, Russia's willingness to engage in large-scale aggression in Ukraine has also made these developments vastly more threatening. The fact remains that Russia still has the largest nuclear arsenal on the planet. Events outside of Europe also matter; the arms control regime has further deteriorated due to the now multipolar nature of the international system and the need for the United States to calibrate arms control decisions between the European and Asian theatres to account for both Russia and China.[3]

No approach in nuclear deterrence and arms control is without costs or risks. However, given the rapidly changing international environment that is becoming more multipolar, more centred on the Indo-Pacific, and with military technology rapidly developing, Europeans cannot afford to let themselves be side-lined when it comes to creating the future of the arms control regime and broader regional security in Europe. Despite a real need to reinvigorate the arms control regime, Europeans lack political leverage to shape arms control negotiations with Russia, because they lack the weapons to bargain with. Yet the future of arms control, like its past,[4] is based as much on competition as on cooperation. States must be able to have

1 Steven E. Miller, 'The Rise and Decline of Global Nuclear Order?', Belfer Center for Science and International Affairs, April 2021, https://www.belfercenter.org/publication/rise-and-decline-global-nuclear-order.

2 The Moscow Times, 'Russia Test-Fires "Tsirkon" Hypersonic Missile', The Moscow Times, 26 November 2020, https://www.themoscowtimes.com/2020/11/26/russia-test-fires-tsirkon-hypersonic-missile-a72158; David Axe, 'Russia's Hypersonic Strike Force Is Mostly For Show', Forbes, 17 December 2020, https://www.forbes.com/sites/davidaxe/2020/12/17/russias-hypersonic-strike-force-is-mostly-for-show/; Associated Press, 'Russia Reports Successful Test Launch of Hypersonic Missile', *Defense News*, 7 October 2020, sec. Europe, https://www.defensenews.com/global/europe/2020/10/07/russia-reports-successful-test-launch-of-hypersonic-missile/; Times, 'Russia Test-Fires "Tsirkon" Hypersonic Missile'; Ivan Oelrich, 'Cool Your Jets: Some Perspective on the Hyping of Hypersonic Weapons', *Bulletin of the Atomic Scientists* 76, no. 1 (2020): 37–45.

3 Paul van Hooft, Lotje Boswinkel, and Tim Sweijs, 'Shifting Sands of Strategic Stability: Towards A New Arms Control Agenda', HCSS Progress (The Hague: The Hague Centre for Strategic Studies, February 2022), https://hcss.nl/wp-content/uploads/2022/02/Arms-Control-Shifting-sands-of-strategic-stability-2022-HCSS.pdf.

4 John D. Maurer, *Competitive Arms Control: Nixon, Kissinger, and SALT, 1969-1972* (Yale University Press, 2022); John Maurer, 'Future European Contributions to Arms Control: Compete to Negotiate' (The Hague, Netherlands: Hague Centre for Strategic Studies, 2023).

an advantage they are willing to surrender in part or completely, to gain another advantage or avoid a disadvantage. Yet, only the UK and France are nuclear states in Europe, and the rest are committed to the Non-Proliferation Regime (NPR); moreover, new nuclear-armed European states would likely destabilise European security, either by creating incentives for Russian pre-emptive strikes, or arms racing by other states.

What is the potential for European investments in advanced conventional weapons that could incentivise Russia back to the negotiating table? Put differently, how can Europe independently compete with Russia in a manner that creates conditions for restraint on the part of Russia? This brief explores the potential of competitive approaches to arms control. A competitive approach to arms control makes use of advantages or disadvantages of the adversary to incentivise them to negotiate about the quantity and quality of weapon systems.

The report looks at past Cold War success stories of competitive arms control, such as NATO Double-Track and the Strategic Arms Limitation Talks (SALT). It finds that competitive arms control approaches are difficult, but can also pay dividends. The European security environment of 2023 is far from that of the mid-1970s and early 1980s, and there are dangers in assuming that the placement of nuclear-armed short-and-medium range weapons is appropriate each time that an adversary needs to be incentivised to negotiate.[5] Though many of the differences stem from the circumstances of history, there are several major structural differences that should be highlighted:

1) **Modern Russia is not the Soviet Union.** Though Russia acts very much in the imperial style of its predecessor, the modern Russian state and its political-economic circumstances cannot pretend to the strength possessed by the Soviet Union, particularly in the 1970s. The Soviet Union at the time of the Double-Track Decision was significantly more powerful in both economic and military terms than modern Russia, and this is without yet considering the full impacts of the Russian invasion of Ukraine on its economy and military strength.

2) **NATO is now doubled in size.** Negotiations to find a common position on weapons deployments alongside a renewed arms control agenda have a much steeper hill to climb than when its members were mostly located in Western Europe. Achieving common positions between states across Europe will be no easy feat of intra-alliance management.

3) **Russia is not the only competitor in the missile space.** The growth of Chinese military power and the proliferation of short- and medium-range ballistic and cruise missile technologies complicates attempts to genuinely reduce risk on a global scale such as in the INF Treaty. Any future negotiations will likely need to be multilateral and consider the impact of a deal in Europe on balances and perceptions in other regions; short and intermediate range missiles were and are strategic weapons in Europe, in the Western Pacific they are essentially theatre weapons.

4) **NATO and Russia have essentially reversed positions with regards to the role of nuclear weapons in their respective strategies.** During the 1960s, 1970s, and the early

5 Susan Colbourn, 'Euromissiles', in *Euromissiles* (Cornell University Press, 2022); Susan Colbourn, 'Arms Control and Deterrence: The Euromissiles, Then and Now' (The Hague, Netherlands: Hague Centre for Strategic Studies, 2023). Such analogies are already being made to make policy recommendations for the short- and medium-range missile threat the United States from China in the Western Pacific. Bates Gill, 'Exploring Post-INF Arms Control in the Asia-Pacific: China's Role in the Challenges Ahead', Missile Dialogue Initiative (London, UK: International Institute for Strategic Studies, June 2021).

1980s, the Soviet Union together with its Warsaw Pact allies was considered to have the conventional advantage over NATO in terms of numbers. The United States invested in precision-strike and counted on low-yield tactical / non-strategic nuclear weapons to compensate for this imbalance. In its truncated form, with a weakened economy and without allies, Russia has looked to tactical nuclear weapons to compensate for its conventional weaknesses regarding an expanded NATO underpinned by high-end US arms.

Despite these structural differences, several dynamics that impacted the implementation of the decision would likely remain as salient in the current environment as they were in the late Cold War. These are challenges endemic to arms control efforts in general, and not necessarily particular to the case of Europe and Russia:

1) **Understanding trade-offs.** In implementing the Double-Track Decision, NATO leaders de-emphasised, though did not abandon, other negotiations related to conventional troop levels. Future efforts should consider those other areas of cooperation that might be affected and consider how newly introduced efforts may put them on hold or in a less prominent light.

2) **Staying the course.** The Integrated Decision Document (the formal NATO decision) only survived between 1979 and the final signing of the INF due to the willingness of European and North American governments to maintain commitment to the approach across shifting political coalitions, contentious elections, and other intervening events around the world. This policy consistency was vital.

3) **Flexibility to global dynamics.** The initial INF position, which began with a 'zero option' for Europe, later expanded during the Reagan administration to include the entire globe in order to consider the broader risks posed by these weapons to other Western-aligned states. This flexible approach to considering the views of those facing second-order effects ultimately made the Double-Track Decision and its implementation even stronger.

A competitive approach to arms control is built on the assumption that an actor recognises that its long-term future security is looking progressively worse if they do not act *now* to stabilise the qualitative and quantitative military balance of power. When it comes to incentives to induce Russia to return to arms control negotiations, the report therefore looks at what Russia fears. In the case of nuclear weapons, delivery systems, and their enablers, the competitive approaches to arms control tend to lean towards damage limitation through counterforce, missile defence, or command and control disruption or destruction. As our brief shows, these weapon systems top Russian concerns when it comes to the extensive capabilities of the United States. They are also destabilising, given that they explicitly undermine Russia's secure second strike.

The approach is also built on the assumption is that the existing and future European options should be seen both (1) as part of the broader NATO deterrent, which depends largely on the U.S. nuclear deterrent, and (2) as a set of individual and collective assets that could be used without the United States given current uncertainties about the US commitment to Europe due to structural pressures driving it to the Western Pacific and its domestic polarization that is driving increasingly unilateral and even isolationist tendencies. In these circumstances, European states cannot simply afford to outsource their core security responsibilities to Washington.

Competitive approaches to arms control are thus not without risk, and it is important to distinguish between "good fear" that is likely to incentivise an adversary to negotiate and "bad fear" that is likely to lead them to escalate with capability investments, posture changes, or procedural changes of their own. The brief notes eight nuclear policies for nuclear-armed states: four of these fall under ensuring a secure second strike; one as ensuring a second strike; and three as damage limitation strategies. Secure second strike approaches include (1) redundancy; (2) hardening; (3) mobility; and (4) concealment. A second strike can be made more likely by (5) changing the nuclear doctrine and delegation. However, states can also seek to take away the second strike of their adversaries to protect their societies through damage limitation, whether through: (6) counterforce strikes; (7) missile defence; and (8) disruption of command, control, communication, and intelligence (C3I) approaches. Table 1 summarises these approaches and their effects on strategic stability.

## Table 1. Nuclear posture choices, logic, consequences for stability

| | Options | Investment | Logic, relies on | Consequences for stability |
|---|---|---|---|---|
| Secure second strike | *Redundancy (1)* | Numbers of nuclear warheads; delivery systems | Sufficient numbers remain to ensure that set of countervalue attacks succeed | Increases chances for first strike success; increases risks of inadvertent escalation; accidental use |
| | *Hardening (2)* | Protection silo basing of land-based missile delivery systems | Sufficient numbers remain to ensure that set of countervalue attacks succeed | Necessitate adversary investments in greater numbers and greater precision |
| | *Mobility (3)* | Ability to move delivery systems around to avoid destruction | Sufficient numbers remain to ensure that set of countervalue attacks succeed; potential for signalling | Incentivise adversary investments in greater numbers and greater precision |
| | *Concealment (4)* | Ability to hide from detection and avoid destruction | Sufficient numbers remain to ensure that set of countervalue attacks succeed | Incentivise adversary investments in greater numbers and greater precision |
| *Second strike* | *Delegation, launch on warning, readiness (5)* | Ensure commanders have ability to launch; increase readiness to launch; lower threshold for launch | Prevent decapitation strike; prevent disruption of C3I | Increases opportunities for error and misperception, and thus accidents and inadvertent escalation |
| *Damage limitation* | *First strike / counterforce (6)* | Destroy adversary nuclear arsenal and delivery systems | Precision, surprise, mobility, concealment, placement close to target, and numbers | Counterforce capabilities trigger arms racing; early perceived signs of attack trigger adversary escalation |
| | *Missile defence (7)* | Defence against ballistic and cruise missiles | Blunt the adversary's attack to protect cities and economic centres | Missile defence can signal commitment to first strike and thus necessitate adversary investments |
| | *Disruption or destruction of decision-making and decapitation (8)* | Disrupt or destroy adversary decision-making through decapitation strike on leadership, attacks on C3I through anti-satellite weapons, cyber-weapons, strikes on over the horizon radars | Achieve surprise; delay or stop adversary responses / nuclear return strike | Attacks on C3I may lead to misperception about intentions and inadvertent nuclear escalation; first signs of actual attack may trigger rapid escalation |

Nuclear-armed states seek to maintain a secure second strike; it is particularly damage limitation strategies that threaten these and that are thus useful for incentivising them to negotiate arms control measures. Building on the need to balance between incentivising through competition on the one hand, i.e., "good fear", and not rapidly undermining strategic stability on the other, i.e., "bad fear", we advocate for three core tenets of a competitive arms control approach that seeks to avoid strategic instability.

First, a competitive approach should not confront an adversary with a dichotomous choice between a secure second strike and the complete loss of one; the preference is for weapon systems that are scalable over time. They should suggest that the future is becoming progressively worse for the adversary but can still be avoided. Invoking fear is crucial in both approaches. When the adversary believes the secure second strike is about to be lost, they are likelier to make destabilising investments, or take destabilising actions; if it is in the future, the adversary is likelier to consider negotiation rather than capabilities as a response to re-stabilise the situation.

Second, a competitive approach needs to consider the time horizon that would provide the adversary the opportunity to negotiate; such opportunities need to exist for competitive strategies to encourage willingness to engage in arms control in an adversary, while at the same time diminishing the risks of strategic instability. Put simply, competitiveness strategies need volume control to be effective as incentives for arms control rather than arms racing. The multi-step process can be a time-conditional one, or a step-conditional one.

Third, a competitive approach should take into account the overall strategic context of an adversary, whether their strategic depth, their political stability, and/or the conventional balance of power. An adversary should not be confronted with an unacceptable threat to its existence beyond the nuclear dimension. Investments to exploit adversary vulnerabilities along these lines that drastically impact their likelihood of survival – whether the state or the regime - would be likely to trigger risk-acceptant responses to rebalance through capability investments or by undertaking dangerous actions.

Using these criteria, we find three broad categories of advanced weapons that Europeans could invest in that are likely to incentivise Russia to negotiate:

(1) advanced airpower, specifically stealth and low altitude flight;

(2) high-precision conventional weapons, such as cruise missiles and hypersonic weapons; and

(3) expansive missile defence.

All three capabilities suggest a growing European capability for damage limitation that Russia should be expected to want to avoid. Certainly advanced airpower and precision weapons allow for step-wise, graduated approaches that leave Russia with windows of opportunity for negotiation over the numbers and properties of technologies. Missile defence is riskier. However, all three allow for continuous improvements through the integration with emerging technologies, where Europeans backed by the United States are likelier to find advantages. In line with other discussions of strategic stability, we note the destabilising risks of left-of-launch cyber or anti-satellite weapons. Their development leaves little room for negotiation and have few possibilities for signalling. The proposed capability investments in advanced airpower and precision weapons have other political-strategic advantages. They would be useful in a

conventional war with Russia and thus contribute to conventional deterrence. If produced within Europe, they could provide impetus for the further development of the European defence industry and contribute to strategic autonomy. Table 2 summarises these options for Europe.

## Table 2. Options for conventional investments, effects on strategic stability, and arms control

| | Advanced conventional capabilities | Effects | Possible Impact on Arms control |
|---|---|---|---|
| **"Good fear"** | Airpower | Scalable, long-term time dimension, context-acceptable | Open negotiations on Russian delivery systems, warhead caps, transparency and risk reduction measures |
| | Conventional missiles | Scalable, long-term time dimension, context acceptable | Open negotiations on Russian delivery systems, warhead caps, transparency and risk reduction measures |
| | Missile defence | Scalable, long-term time dimension | Open negotiations on Russian delivery systems, warhead caps |
| **"Bad fear"** | Disruption of C3I systems | Dichotomous, abrupt | Bad for signalling, change in Russian posture |
| | Space weapons | Dichotomous, abrupt | Bad for signalling, change in Russian posture |

# Introduction

Europeans, whether organised through the EU or in minilateral fora, have ample motives to reinvigorate the arms control regime. The Russian suspension of New Start in February 2023 raises questions as to whether the United States and Russia will continue to be willing to put caps on their deployed nuclear arsenals, especially if they also keep the seeming increase of the Chinese arsenal in mind. The end of the Intermediate-Range Nuclear Forces (INF) Treaty has reopened the door for the place of short and medium range ballistic and cruise missiles with a 500–1,000 km range. The security situation in Europe has drastically deteriorated with the 2022 Russian invasion of Ukraine. How the war will end remains uncertain, as is how it will shape the future European order. Yet, the war looks to leave the Russian Federation significantly weakened; its economy and technological-industrial base diminished; its conventional armed forces and their munitions depleted; and its military aura diminished. However, a diminished and resentful Russia is more likely to rely on its nuclear arsenal to maintain its great power status. Moreover, a Russia that is a wounded animal– ironically – has real advantages in terms of risk-taking and nuclear brinkmanship for coercive purposes. One can look at North Korea's disruptive role in Northeast Asia for an example. Simply put, Europeans cannot afford to live alongside a nuclear bully Russia unrestrained by arms control.

Europeans cannot afford to let themselves be side-lined when it comes to creating the future of the arms control regime and broader regional security in Europe.

Global dynamics undermine the likelihood of the arms control status quo magically restoring itself. Two reasons make this unlikely. First, geopolitical competition in East Asia, South Asia, Europe, and elsewhere have increased the importance of nuclear weapons and created new options for potential use, including by increasing the importance of advanced conventional weapons. Second, emerging technologies have changed the calculus of when and how nuclear weapons can be used.[6] The continued shift of American attention towards the Indo-Pacific places a premium on renewed diplomatic and military efforts led by European states.[7]

Yet, despite the incentive to reinvigorate the arms control regime that directly affects their own security, Europeans possess few means to shape the arms control regime. Given the rapidly changing international environment that is becoming more multipolar, more centred on the Indo-Pacific, and with military technology rapidly developing, Europeans cannot afford to let themselves be side-lined when it comes to creating the future of the arms control regime and broader regional security in Europe.

6 Marina Favaro, 'Weapons of Mass Distortion: A New Approach to Emerging Technologies, Risk Reduction, and the Global Nuclear Order' (London, United Kingdom: Centre for Science and Security Studies, 2021), https://www.kcl.ac.uk/csss/assets/weapons-of-mass-distortion.pdf; Todd S. Sechser, Neil Narang, and Caitlin Talmadge, 'Emerging Technologies and Strategic Stability in Peacetime, Crisis, and War', *Journal of Strategic Studies* 42, no. 6 (2019): 727–35; Caitlin Talmadge, 'Emerging Technology and Intra-War Escalation Risks: Evidence from the Cold War, Implications for Today', *Journal of Strategic Studies* 42, no. 6 (2019): 864–87; Christopher Bidwell, Bruce MacDonald, and JD MacDonald, 'Emerging Disruptive Technologies and Their Potential Threat to Strategic Stability and National Security' (Federation of American Scientists, September 2018).

7 Luis Simón, Linde Desmaele, and Jordan Becker, 'Europe as a Secondary Theater? Competition with China and the Future of America's European Strategy', *Strategic Studies Quarterly* 15, no. 1 (2021): 90–115; Paul Van Hooft, 'The United States May Be Willing, but No Longer Always Able: The Need for Transatlantic Burden Sharing in the Pacific Century', in *The Future of European Strategy in a Changing Geopolitical Environment: Challenges and Prospects*, ed. Michiel Foulon and Jack Thompson (The Hague, Netherlands: The Hague Centre for Strategic Studies, 2021). See also the emphasis on China as the pacing threat for US defence planning in the two most recent US National Defense Strategies. Department of Defense, *Fact Sheet: 2022 National Defense Strategy* (Washington D.C: Department of Defense, 2022); Jim Mattis, 'National Defense Strategy of the United States of America' (Washington D.C.: Department of Defense, 2018).

The brief argues that Europeans should explore competitive measures towards Russia to incentivise it to return to arms control negotiations. Despite common perceptions to the contrary, historically, arms control breakthroughs were driven by states looking to maintain a favourable status quo, rather than by good will or intentions. The policy brief explores which non-nuclear options exist to Europe to prod Russia towards the negotiating table. It focuses on Russia, because the working assumption is that if Europeans in fact acquire any leverage, it will be restricted to Europe as a region. In other words, Europeans are unlikely to have many means to incentivise China to engage the United States on arms control.[8]

The brief proceeds as follows: first, it discusses the logic of competitive approaches to arms control; second, it examines historical examples, specifically NATO-Doubletrack; third, it looks at Russian fears; fourth, it discusses which of these fear-inducing military capabilities are available to Europeans; fifth, the brief discusses the implications for arms control and the feasibility of implementation.

8 Tong Zhao, 'Europe's Role in Promoting US-China Arms Control Cooperation' (The Hague, Netherlands: Hague Centre for Strategic Studies, February 2022), https://hcss.nl/report/europes-role-in-promoting-us-china-arms-control-cooperation/.

# Arms control through competition: counterintuitive but necessary

How to incentivise states to engage in arms control, specifically on nuclear warheads, delivery platforms, and the accompanying or enabling technologies? In part, policymakers are incentivised by a shared common interest; after all, all states would suffer from a nuclear exchange. Yet, policymakers simultaneously fear a relative decline of the retaliatory second strike capability due to quantitative or qualitative improvements in the nuclear and/or conventional capabilities of their adversaries.

...by definition arms control takes place primarily between rivals and adversaries to maintain strategic stability.

States will engage in arms control when they are convinced that they stand to lose an advantage or gain a disadvantage if they do not engage in the future, while they simultaneously seek to avoid coercion by the adversary and the threat of mutual destruction through all-out nuclear war. Combining competition and arms control seems counterintuitive because arms control is often equated to cooperation, but by definition arms control takes place primarily between rivals and adversaries to maintain strategic stability.

Strategic stability has two facets: deterrence stability and crisis stability. Deterrence stability looks at whether one or more of the states believes it has an advantage (or no disadvantage) in terms of enough of its arsenal surviving a first strike; deterrence instability is when states believe they have lost their secure second strike ability. Crisis stability depends on whether all states involved in a crisis with potential for nuclear escalation are confident that they can correctly assess whether escalation is taking place; crisis instability is when one or more states involved in a crisis believe their forces are under attack and destroying their secure second strike ability.[9] Deterrence and crisis stability are conceptually distinct, but in practice overlap in parts.

9 Forrest E. Morgan, "Crisis Management, Crisis Stability, and Force Structure," in *Crisis Stability and Long-Range Strike*, A Comparative Analysis of Fighters, Bombers, and Missiles (RAND Corporation, 2013), 9–34, https://www.jstor.org/stable/10.7249/j.ctt3fh1db.10. Elbridge A. Colby, "Defining Strategic Stability: Reconciling Stability and Deterrence," in *Strategic Stability: Contending Interpretations* (Carlisle, PA: Strategic Studies Institute, US Army War College, 2013), https://apps.dtic.mil/dtic/tr/fulltext/u2/a572928.pdf. James M. Acton, "Reclaiming Strategic Stability" (Fort Belvoir, VA: Defense Technical Information Center, 2013), https://doi.org/10.21236/ADA572928. Alan Cummings, "Crisis Stability, Ooda Loops, and Hypersonic Weapons," in *On the Horizon: A Collection of Papers from the Next Generation*, vol. 3 (Center for Strategic and International Studies, 2021), 24–39, https://www.csis.org/analysis/horizon-vol-3-collection-papers-next-generation. Glenn A. Kent and David E. Thaler, "First-Strike Stability: A Methodology for Evaluating Strategic Forces," January 1, 1989, 1–73.

# Competing pressures of secure second strike and damage limitation

In the nuclear age, states are preoccupied with maintaining the credibility of their deterrent, which means they need a *secure second strike*. Without arms control, perceived losses of deterrence stability can lead to arms racing, where states are reacting to the qualitative and quantitative investments of their rivals and adversaries that in turn lead to other reactions, including arms racing.[10] States that seek to regain a (perceived) lost second strike ability may focus on (1) *redundancy*, by building more nuclear weapons; (2) *hardening*, by reinforcing fixed launch sites; (3) *mobility*, by increasing the number of land-based, sea-based, or air-based launchers; (4) *concealment*, by looking to hide land-based, sea-based, or air-based launchers.[11]

These are not the only options to ensure a second strike; if the costlier and technologically difficult approaches are out of reach, other, riskier approaches also exist to maintain deterrence. States could also attempt to maintain a second strike retaliatory capability by (5) changing the nuclear command and control arrangements to stave off the risk of decapitation *strikes*; by *delegating launch authority* to more commanders, by changing the *posture to launch-on-warning*; and/or by placing nuclear forces on high *readiness*.[12]

Policies that emphasise the five approaches above conceive of the nuclear dynamic as one where the existence of a secure second strike, even if limited, will be sufficient to deter an adversary, regardless of the extent of damage done by the second strike.[13] This a broadly countervalue approach, where the loss of any major cities or economic centres would outweigh the benefits of actions that change the status quo and thus suffice to deter. This approach relies on, in Thomas Schelling's words, "the risk that leaves something to chance".[14]

These first five options have varying effects on strategic stability. The fifth one most obviously undermines crisis stability, as it can lead to accelerated, inadvertent, or accidental escalation to nuclear use. The first four can affect overall deterrence stability; however, they do so because they can interact with the following three options that nuclear-armed states have to ensure their survival of their state and society.

Rather than rely on mutual destruction, another set of approaches exist that look to minimise the damage of a nuclear exchange and allow a state to coerce without being coerced. A secure second strike approach relies on mutual vulnerability; but one could see why policymakers ideally would prefer to entirely remove or diminish such an existential threat to one's society and economy. These approaches are known as *damage limitation strategies*,[15]

10 Some scholars are sceptical that arms racing is a common historical phenomenon. See: Matthew Kroenig, *The Logic of American Nuclear Strategy: Why Strategic Superiority Matters* (Oxford University Press, 2018), 149–53.

11 Keir A. Lieber and Daryl G. Press, 'The New Era of Counterforce: Technological Change and the Future of Nuclear Deterrence', *International Security* 41, no. 4 (2017): 9–49.

12 David Arceneaux, 'Nuclear Command and Control and Strategic Stability' (The Hague, Netherlands: Hague Centre for Strategic Studies, 2023).

13 For example, both the UK and France explicitly follow minimalist approaches to nuclear deterrence. Bruno Tertrais, 'The European Dimension of Nuclear Deterrence: French and British Policies and Future Scenarios', *The Finnish Institute of International Affairs*, 2018.

14 Thomas C. Schelling, *The Strategy of Conflict*, 1980 edition (Harvard University Press, 1960), sec. chapter 8. For example, Chinese leaders have for decades found it acceptable to have a nuclear posture that is arguably not survivable, though this may be changing. Fiona Cunningham, 'Strategic Substitution: China's Search for Coercive Leverage in the Information Age', *International Security* 47, no. 1 (2022): 46–92.

15 Herman Kahn is arguably the first and most famous exponent of this approach that refuses to accept vulnerability to existential threats. Herman Kahn and Evan Jones, *On Thermonuclear War* (Princeton: Princeton University Press, 1960), 20, https://www.routledge.com/On-Thermonuclear-War/Kahn-Jones/p/book/9781412806640. For a modern example of the approach, see: Kroenig, *The Logic of American Nuclear Strategy*, 16–20, 39–64.

and differ fundamentally from deterrence.[16] In deterrence strategies, nuclear weapons are targeted at cities and economic centres – the so-called *countervalue* strategy. In damage limitation strategies, nuclear and conventional weapons seek to disable the adversary's nuclear arsenal – the so-called *counterforce* strategy. Though a counterforce strategy can deter by threatening a disarming strike, it is distinguished from the more general, countervalue driven deterrence by punishment approach associated with strategic nuclear forces.[17]

For purposes of damage limitation, more assertive options present themselves: (6) a *conventional or nuclear counterforce first strike* that would destroy a large part of the adversary's nuclear arsenal, which could succeed either through sheer numbers, destructiveness of weapons, targeting precision, or surprise; (7) ballistic and other *missile defence systems* to stop entirely or a sufficient part of the adversary's nuclear reprisal, likely in combination with a first strike that destroys or disables a large part of the adversary's nuclear arsenal; or (8) the *disruption of the adversary's nuclear command and control, and/or communication*, including decapitation strikes, to entirely stop or sufficiently delay a second strike, likely in combination with a first strike that destroys or disables a large part of the adversary's nuclear arsenal and ballistic and other missile defence systems to absorb the remainder. Obviously, such measures come at the cost of the adversary's secure second strike. They drastically undermine strategic stability by giving the adversary incentives to compensate for their weaknesses either by matching these capabilities or by developing alternatives.

These dilemmas between damage limitation through first strike and missile defences and a more limited secure second strike approach were key to the Cold War nuclear arsenal development, production, deployment, and employment choices. Luminaries of nuclear studies such as Robert Jervis argued that a so-called nuclear revolution had taken place, where mutual destruction had diminished the incentives for major conflict between nuclear-armed great powers.[18] It was often not obvious to policymakers whether approaches that sought to prevent the adversary's arsenal from threatening the state were indeed worse than the alternative in which policymakers would accept existential vulnerabilities; nor is it necessarily clear now when it comes to states such as North Korea. In fact, recent scholarship by Kier Lieber, Daryll Press, Brendan Green, Austin Long, and Matt Kroenig casts serious doubts whether the nuclear revolution in fact took place.[19] Despite the steps taken by the United States and Russia in the late 1960s and early 1970s towards a nascent arms control regime, the United States never relented from working towards a first strike capability that could find and destroy Soviet and then Russian submarines, bombers, and missile silos, and missile defences to destroy the remaining incoming nuclear warheads.

Policies to achieve a secure second strike or to ensure damage limitation have different effects on strategic stability. With regards to deterrence stability, if two or more states believe they are losing their own advantages regarding a secure second strike, or the means if absolutely needed to engage in a first strike to disable at least part of the adversary's arsenal,

16 Charles L. Glaser and Steve Fetter, 'Should the United States Reject MAD? Damage Limitation and U.S. Nuclear Strategy toward China', *International Security* 41, no. 1 (2016): 49–98, https://doi.org/10.1162/ISEC_a_00248.

17 George Perkovich and Pranay Vaddi, 'Proportionate Deterrence: A Model Nuclear Posture Review' (Washington, D.C.: Carnegie Endowment for International Peace, 2021), 41.

18 Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Cornell University Press, 1989).

19 Keir A. Lieber and Daryl G. Press, *The Myth of the Nuclear Revolution: Power Politics in the Atomic Age* (Cornell University Press, 2020); Brendan Rittenhouse Green, *The Revolution That Failed: Nuclear Competition, Arms Control, and the Cold War* (Cambridge University Press, 2020); Austin Long and Brendan Rittenhouse Green, 'Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy', *Journal of Strategic Studies* 38, no. 1–2 (2015): 38–73; Kroenig, *The Logic of American Nuclear Strategy*.

they can engage in arms racing. Many of the solutions to ensure that a state does not have disadvantages towards its adversary regarding its secure second strike create problems for crisis stability: more nuclear missiles increase the risks of accidents and misperceptions by either or both sides; as do more launch platforms; as does delegating launch authority; while launch-on-warning shortens the decision-making timelines and increases the risks of misperception.

At the same time, increases in the size of the nuclear arsenal also increase the possibilities for what may be perceived as a sufficient first strike. These possibilities are specifically high if the state has high targeting precision, versatile delivery platforms with regards to mobility and concealment to achieve surprise, the means to disrupt C3I, and/or missile defences. The decision to pursue damage limitation is thus hugely risky from the point of view of strategic stability and the ultimate, and generally shared, end goal of avoiding a nuclear exchange. Table 3 below summarises the options for deterrence and damage limitation for nuclear states.

## Table 3. Nuclear posture choices, logic, consequences for stability

| | Options | Investment | Logic, relies on | Consequences for stability |
|---|---|---|---|---|
| Secure second strike | *Redundancy (1)* | Numbers of nuclear warheads; delivery systems | Sufficient numbers remain to ensure that set of countervalue attacks succeed | Increases chances for first strike success; increases risks of inadvertent escalation; accidental use |
| | *Hardening (2)* | Protection silo basing of land-based missile delivery systems | Sufficient numbers remain to ensure that set of countervalue attacks succeed | Necessitate adversary investments in greater numbers and greater precision |
| | *Mobility (3)* | Ability to move delivery systems around to avoid destruction | Sufficient numbers remain to ensure that set of countervalue attacks succeed; potential for signalling | Incentivise adversary investments in greater numbers and greater precision |
| | *Concealment (4)* | Ability to hide from detection and avoid destruction | Sufficient numbers remain to ensure that set of countervalue attacks succeed | Incentivise adversary investments in greater numbers and greater precision |
| *Second strike* | *Delegation, launch on warning, readiness (5)* | Ensure commanders have ability to launch; increase readiness to launch; lower threshold for launch | Prevent decapitation strike; prevent disruption of C3I | Increases opportunities for error and misperception, and thus accidents and inadvertent escalation |
| *Damage limitation* | *First strike / counterforce (6)* | Destroy adversary nuclear arsenal and delivery systems | Precision, surprise, mobility, concealment, placement close to target, and numbers | Counterforce capabilities trigger arms racing; early perceived signs of attack trigger adversary escalation |
| | *Missile defence (7)* | Defence against ballistic and cruise missiles | Blunt the adversary's attack to protect cities and economic centres | Missile defence can signal commitment to first strike and thus necessitate adversary investments |
| | *Disruption or destruction of decision-making and decapitation (8)* | Disrupt or destroy adversary decision-making through decapitation strike on leadership, attacks on C3I through anti-satellite weapons, cyber-weapons, strikes on over the horizon radars | Achieve surprise; delay or stop adversary responses / nuclear return strike | Attacks on C3I may lead to misperception about intentions and inadvertent nuclear escalation; first signs of actual attack may trigger rapid escalation |

Yet, a competitive approach to arms control would largely seek to manipulate a state's sense of the security of its nuclear second strike, thereby undermining deterrence stability in the short-to-midterm, to ensure arms control measures and thus deterrence stability and especially crisis stability in the long-term. These investments to threaten an adversary and thereby incentivise them to join negotiations are thus dangerous if not carefully managed. Broadly then, a competitive approach to arms control will need to keep three elements in mind, in order to increase the chances at success without drastically undermining strategic stability.

First, a competitive approach should be *scalable* so that the adversary can negotiate over relative qualitative and/or quantitative advantages and disadvantages. The approach must distinguish between capabilities that put adversaries in a dichotomous mindset where they believe their deterrent capability will be entirely lost when the technology is deployed, and capabilities that suggest a gradual but inevitable worsening of their deterrence in the future unless steps are taken to maintain the more favourable status quo. Invoking fear is crucial in both approaches. However, in the former, the adversary is likelier to make destabilising investments or take destabilising actions to compensate for the absolute loss of security; in the latter, the adversary is likelier to consider negotiation as a response to maintain relative security.

Second, a competitive approach should ensure that the adversary has *sufficient time* to assess the decline in their security and to respond. The approach needs to consider the time horizon that would provide the adversary the opportunity to negotiate. Without such an opportunity, competitive strategies could undermine strategic instability. The process can be step-conditional or time-conditional. For example, when the damage limitation capability exists of two parallel investments in delivery systems and guidance technology, the adversary would have the opportunity to respond before both steps have been taken. The time-conditional is when a sequential technological development, production, deployment, and employment series to achieve a damage limitation capability is in the medium-to-long term but gradual.

Third, a competitiveness approach to arms control should take into account the adversary's specific context. The approach would therefore depend on: the adversary's strategic depth, and thus their access to space and time; their political stability or lack thereof; the conventional balance of power. Investments to exploit adversary vulnerabilities along these lines that drastically impact their likelihood of survival – whether the state or the regime - would be likely to trigger risk-acceptant responses to rebalance through capability investments or by undertaking dangerous actions. In the following sections, we will highlight where different technologies land in terms of scalability, timeline, and context.

Summing up, a competitive approach to arms control is thus manipulating in very specific ways the perception of risk by the adversary, which are finely attuned to what the adversary perceives as its vulnerabilities and what it perceives as the state's strengths. There is thus a continuity in thinking here, where deterrence is itself part of manipulating risk to the extent that an adversary refrains from taking actions that change the status quo because the perceived benefits of the change do not outweigh the perceived costs. Arms control thus looks at manipulating risks to the adversary's deterrence.

In the upcoming sections we will discuss examples of past successes in competitive arms control, specifically NATO Double-Track and SALT, but also contextualise these, before moving on to what Russian leaders currently fear in the field of nuclear weapons.

# Competition and negotiation: historical examples of two-track approaches

Statecraft was not considered as being a choice between diametrically opposed options, but rather as combining confrontation and cooperation as part of a broader competitive engagement with a rival or adversary

Negotiating with adversaries seems counterintuitive, yet arms control talks during periods of heightened tension are not without precedent.[20] The Strategic Arms Limitation Treaties (SALT), the Intermediate-Range Nuclear Forces (INF) Treaty, and Mutual and Balanced Force Reductions negotiations (MBFR), and later the Treaty on Conventional Forces in Europe (CFE), were all either held or agreed during some of the highest periods of international tension during the Cold War. The Vietnam War and the Soviet war in Afghanistan are only two of the most intense conflicts during which negotiations were held. Nor is arms control confined to the nuclear realm, as the CFE underlines, but also the 1922 Washington Naval Treaty which placed limits on the numbers of battleships and fortified bases in order to create a defense-dominant environment in the Pacific.[21] Statecraft was not considered as being a choice between diametrically opposed options (i.e., confrontation or conciliation), but rather as combining confrontation and cooperation as part of a broader competitive engagement with a rival or adversary.

The Nixon Administration's pursuit of arms control with the Soviet Union through SALT is often framed as part of the cooperative spirit of the détente era; in fact, Nixon and his advisers saw SALT as an opportunity to frame the nuclear competition on US terms. As John Maurer argues, the United States perceived it had advantages in the accuracy of its Minuteman missiles, which could be further exploited through the missiles' potential to carry Multiple Independently-targeted Re-entry Vehicles (MIRV).[22] By banking on the accruing advantages of the US knowledge economy and anticipating the accuracy revolution, which later become known as the first "Offset Strategy", the United States could afford to negotiate with the Soviet Union on limiting the number of intercontinental ballistic missiles (ICBM). However, the intentions of the Nixon Administration remained opaque to outsiders – and even some insiders – leading to confusion about the nature of the arms control negotiations.[23] Importantly, some of America's European allies felt their interests were left out of the agreement. By limiting

20 Maurer, *Competitive Arms Control*. Lotje Boswinkel and Paul Van Hooft, 'Not One without the Other: Realigning Deterrence and Arms Control in a European Quest for Strategic Stability' (The Hague, Netherlands: Hague Centre for Strategic Studies, 2022).

21 Emily O. Goldman, *Sunken Treaties: Naval Arms Control between the Wars* (Penn State Press, 2010), 80–109; John D. Maurer, 'The Purposes of Arms Control (November 2018)', *Texas National Security Review*, 2018, 14.

22 Maurer, *Competitive Arms Control*, 2–3.

23 Maurer, 6–7.

strategic arms between the Soviet Union and the United States, it gave the impression to the allies that 'all bets were off' when it came to weapons deployed near their territory, namely intermediate and medium-range nuclear weapons.[24]

SALT I and the failure of its extension into SALT II is a largely contextual rather than illustrative example. As already mentioned, the Nixon administration's approach was overly secretive and did not actually make its modernisation and negotiation strategies explicit. Nixon and his national security advisor Henry Kissinger had also sought to link the SALT negotiations with other issues, specifically Vietnam and the Middle East, an approach which failed.[25] While an interim agreement was reached in 1972 that limited the deployments of ballistic missiles (both land and sea-launched) and missile defence technologies, this was due less to an explicitly dual-track approach but rather strongly invigorated by the Nixon administration's desire to deflect anti-Vietnam War sentiment and a Soviet desire to solidify détente.[26] Perhaps its greatest success was in setting the stage for later negotiations and agreements to be pursued by successive governments in Washington and Moscow, all done in an environment of intense military crises and domestic political upheaval.

Washington's pursuit of détente with the Soviet Union had increasingly left European governments wary of the surety of the American nuclear guarantee

The historical example that is most salient and relevant to modern policymakers was the NATO Double-Track Decision taken in 1979. A result of tense intra-alliance negotiations amid renewed competition with the Soviet Union and heightened public scrutiny, it played an important role in setting NATO and national strategies in the final phases of the Cold War. The core of the Double-Track decision was a combined NATO approach to offer reductions in medium- and intermediate-range ballistic missiles while simultaneously threatening the deployment of those same weapons into Europe. With an overall aim of driving Moscow to the negotiating table, it highlighted the possibilities for combined political and military approaches to a sensitive diplomatic challenge. Ironically, it was inspired by European fears that US-Soviet agreements on ICBMs had increased the likelihood that the United States could wage nuclear war in Europe while keeping the continental United States removed from its effects.

## The origins of NATO Double-Track

The impetus of the NATO decision can be found in the collapse of detente, the growth of Soviet and Warsaw Pact military power over the course of the 1970s, and the sense of vulnerability these dynamics created in the United States and its NATO allies. By the late 1970s, after the fall of Saigon in 1975, successive energy crises, and following the Soviet invasion of Afghanistan, there was a general sense amongst North Americans and West Europeans that the balance of power was shifting towards Moscow.[27] Simultaneously, Washington's pursuit of détente with the Soviet Union had increasingly left European governments wary of the surety of the American nuclear guarantee.

24 Phillipp Gassert, Wilfried Mausbach, and Detlef Junker, *The United States and Germany in the Era of the Cold War, 1945–1990 A Handbook* (Cambridge, UK: Cambridge University Press, 2004).

25 David Tal, '"Absolutes" and "Stages" in the Making and Application of Nixon's SALT Policy', *Diplomatic History* 37, no. 5 (2013): 1090–1116.

26 Tal, 1116.

27 Hal Brands, *Making the Unipolar Moment: U.S. Foreign Policy and the Rise of the Post-Cold War Order* (Ithaca: Cornell University Press, 2016), 17–29.

The perception that the United States was losing ground was particularly strong in the nuclear environment. The growth and modernisation of the Soviet ICBM programme increased concerns in Washington that Moscow was working towards a first-strike capability and was building a nuclear force that could "fight, survive, and win a nuclear war."[28] The intermediate range SS-20 'Saber' missile was of focused concern. This coincided with German-American debates over the inclusion of medium-range ballistic missiles (MRBMs) in the SALT II talks, the exclusion of which left West Germany and other allies vulnerable to Soviet missiles while safeguarding the United States from ICBMs. Successive West German governments had urged Washington as early as 1969 to include MRBMs in SALT negotiations but had been rebuffed. Facing US refusal, the government in Bonn and others in Europe shifted position that if MRBMs were not to be included in arms control agreements, then deployments of those same weapons must be deployed to Europe in order to match Soviet capabilities.[29] The imbalance of missile forces between Western Europe and the Soviets, and the flurry of diplomatic and military activity that followed, was dubbed the 'Euromissiles crisis'. Intra-alliance balancing to resolve the crisis grew into what would be the Double-Track Decision.

The decision itself, taken in December 1979, was the result of simultaneous consultations between NATO allies through the High-Level Group (HLG), which focused on how to modernise and deploy theatre-range nuclear forces, and the Special Group on Arms Control (SG), which sought to balance the deployments with a common position on arms control negotiations with Moscow. With meetings beginning in spring 1978, a consensus within both NATO staffs and allied capitals grew. By late 1979, the "Integrated Decision Document" (IDD) had been jointly developed by the HLG and SG, which recommended the deployment of 572 Pershing-II MRBMs and Gryphon Ground-Launched Cruise Missiles (GLCMs) alongside agreement to begin a "SALT III" framework to "negotiate an agreement to ... set equal ceilings on the land-based long-range missile capability on both sides."[30] The Pershing deployment in particular was assumed to play a large role in Moscow's decisions, with US Secretary of Defence Caspar Weinberger arguing that the Soviets were particularly fearful of this newer, more accurate missile.[31]

The decision, taken at a special meeting of foreign and defence ministers in Brussels, was followed by a communique that clearly communicated the new approach:

> "The Ministers have decided to pursue these two parallel and complementary approaches in order to avert an arms race in Europe caused by the Soviet TNF build-up, yet preserve the viability of NATO's strategy of deterrence and defence and thus maintain the security of its member States."[32]

28 Pavel Podvig, 'The Window of Vulnerability That Wasn't: Soviet Military Buildup in the 1970s—A Research Note', *International Security* 33, no. 1 (1 July 2008): 121, https://doi.org/10.1162/isec.2008.33.1.118.

29 Gassert, Mausbach, and Junker, *The United States and Germany in the Era of the Cold War, 1945–1990 A Handbook*.

30 William Burr, 'Thirtieth Anniversary of NATO's Dual-Track Decision The Road to the Euromissiles Crisis and the End of the Cold War', The National Security Archive, 12 October 2009, https://nsarchive2.gwu.edu/nukevault/ebb301/index.htm#4.

31 Brands, *Making the Unipolar Moment: U.S. Foreign Policy and the Rise of the Post-Cold War Order*, 76.

32 'Ministerial Communiqué: Special Meeting of Foreign and Defense Ministers, Brussels' (North Atlantic Treaty Organization, 12 December 1979), https://ghdi.ghi-dc.org/sub_document.cfm?document_id=1127.

# Implementing the decision

Implementation of NATO's new parallel approach to competition and arms control was difficult. The Double-Track agreement, already the result of a tortuous, year-long negotiation within NATO, was only to be the beginning of the process. European governments were reticent from the beginning about the full deployments agreed within the decision, due largely to the growth of the anti-nuclear movement and the complexities of their national systems. As NATO announced the decision, the Belgian and Dutch governments added that they would respectively decide on the deployments in six months for Brussels and two years for The Hague.[33]

The Dutch case illustrates the complexity of implementing alliance-level agreements in national contexts. A VVD-CDA coalition government, led by Andries van Agt, faced internal divisions as anti-nuclear sentiment grew both within the CDA and in parliament more broadly. Between 1981 and 1985, various coalition governments under Prime Ministers van Agt and Lubbers struggled to balance between the imperative of being a 'good ally' on one hand and widespread opposition against the introduction of new weapons onto Dutch territory. In order to preserve the VVD-CDA coalition, the compromise solution to endorse the Double-Track Decision but postpone deployments until 1981 was reached. The following years led to continued delays by successive coalitions in the face of both public and internal opposition. In the end, the debate was overtaken by the second track of the NATO decision with the signing of the INF Treaty in 1987. No new weapons were stationed in the Netherlands during this period.[34]

This public opposition to further deployments grew across the members of NATO, with mass protests occurring across North America and Europe through the early- and mid-1980s. Public fears of a potential nuclear conflict rose to startingly high levels. For example, in West Germany fears of an imminent war rose from 17% in 1979 to 48% the following year. The demands of the movements were simply a freeze to both Soviet and NATO deployments. The size and persistence of these large-scale protests were an ever-present background to the attempts of NATO governments to implement the Dual-Track Decision.[35] Implementing a competitive approach in the current European environment would also be difficult, as we note below.

# Reactions in Moscow and INF negotiations

The most critical perception in the entire enterprise, however, was that of the Soviet leadership. US intelligence assessments made clear estimates of what was believed would bring Moscow to the bargaining table. It was believed that "they were most likely to bargain if their failure to do so would lead to the deployment of new NATO weaponry, which would occur under the dual-track approach."[36] The initial Soviet response to the announcement of the

33 Colbourn, 'Euromissiles'.

34 Ruud van Dijk, 'Explaining Dutch Reservations About NATO's 1979 Dual-Track Decision', Nuclear Proliferation International History Project (Washington, D.C.: Woodrow Wilson International Center for Scholars, 2013), https://www.wilsoncenter.org/publication/explaining-dutch-reservations-about-natos-1979-dual-track-decision.

35 David Cortright, *Peace: A History of Movements and Ideas* (Cambridge, UK: Cambridge University Press, 2008).

36 Stephanie Freeman, 'The Making of an Accidental Crisis: The United States and the NATO Dual-Track Decision of 1979', *Diplomacy and Statecraft* 25, no. 2 (2014): 339.

decision was to withdrawal from another area for attempted arms control, those on Mutual Balanced Force Reductions (MBFR), the effort to reduce conventional forces levels in Europe. These negotiations, which would only be codified by the Treaty on Conventional Forces in Europe (CFE) did continue with less prominence through the Conference on Security and Conference in Europe (CSCE, later OSCE). Direct NATO-Warsaw Pact talks would not convene until 1987.[37]

Negotiations on the INF did indeed begin in November 1981, with the US/NATO position pushing for a global 'zero option' (no intermediate range forces at all) and the Soviets arguing for a balance of such forces. The initial negotiations yielded little, and as the first NATO weapons were deployed in late 1983, the Soviet delegation walked out of the talks.[38] It should also be noted that other US allies, namely Japan, pushed to ensure that the zero option was to extend beyond Europe as it would leave them vulnerable to Soviet missiles outside of the European theatre.[39] This intra-alliance concern played a role in the expansion of the INF to include all global deployments, though the policy was already the course preferred by the Reagan administration, and serves to underline the difficulties of arms control as it pertains to alliances.

Not only international dynamics made the arms control talks difficult, but also developments within the Soviet Union and the United States and their respective leaderships. First were changes in Soviet leadership. The death of Leonid Brezhnev and the new, harder-line approach taken towards negotiations by his successor Yuri Andropov contributed to the Soviet walk-out in 1983 as much as NATO deployments did. Second was the general deterioration of East-West in this period, with marked crises in the early 1980s including the shootdown of Korean Airlines Flight 007, the Petrov false alarm incident, a much mythologised perception that the Able Archer 83 NATO exercise nearly sparked a war (archival sources indicate it did not), and the Carter-Reagan arms build ups all increased concern in Warsaw Pact capitals.[40] By the middle of the 1980s, tensions had led to desires in both Washington and Moscow to improve relations. This would not begin however until another change in Soviet leadership with the arrival of Konstantin Chernenko. Facilitated by British Prime Minister Margaret Thatcher, INF negotiations resumed in January 1985, buttressed by governments in Washington and Moscow that had become significantly more pessimistic about the roles and desirability of nuclear weapons. Importantly, by 1985 the Soviet leadership had determined that the only way out of a likely losing race with NATO's military modernisation was to negotiate.[41] This would be further reinforced by Chernenko's successor, Mikhail Gorbachev. Between January 1985 and December 1987, successive rounds of negotiations brought the Soviets closer to the desired NATO position, eventually moving even further beyond the zero option in Europe and expanding it globally. On December 8, 1987, Reagan and Gorbachev signed the INF.[42]

37 Joseph P. Harahan and John C. Kuhn III, *On-Site Inspections Under the CFE Treaty: A History of the On-Site Inspection Agency and CFE Treaty Implementation, 1990-1996* (Washington, D.C.: U.S. Department of Defense, 1996)., Appendix G.

38 Avis Bohlen et al., 'The Treaty on Intermediate-Range Nuclear Forces: History and Lessons Learned', *Brookings Arms Control Series* 9 (2012): 27.

39 David T. Jones, 'Post-INF Treaty Attitudes in East Asia', *Asian Survey* 30, no. 5 (1990): 481–92.

40 Simon Miles, 'The War Scare That Wasn't: Able Archer 83 and the Myths of the Second Cold War', *Journal of Cold War Studies* 22, no. 3 (Summer 2020): 86–118; Vojtech Mastny, 'How Able Was "Able Archer"?: Nuclear Trigger and Intelligence in Perspective', *Journal of Cold War Studies* 11, no. 1 (1 January 2009): 108–23, https://doi.org/10.1162/jcws.2009.11.1.108.

41 Aleksandr' G. Savel'yev and Nikolay N. Detinov, *The Big Five: Arms Control Decision-Making in the Soviet Union* (London: Praeger, 1995), 92.

42 Bohlen et al., 'The Treaty on Intermediate-Range Nuclear Forces: History and Lessons Learned'.

# The historical lessons of context and contingency

The success of NATO Double-Track leading to the eventual signing of the INF Treaty should not blind us to the lessons of context and contingency. First, leadership changes in both the United States and the Soviet Union first impeded, then facilitated the negotiations.[43] The change in leadership in the Soviet Union was a consequence of the mounting domestic and international pressures on the Soviet system, but it could very well have led to a Party Chairman less willing to consider conciliatory moves than Mikhail Gorbachev. Instead, we might have seen a more aggressive Soviet leadership that would have considered more escalatory measures to split the transatlantic alliance.

In the decade between 1978 and 1987, sufficient effort was made to coerce and induce the Soviet Union into negotiations

Second, public pressure constrained European governments, and thus the United States, delaying implementation. The delay may have given breathing room to negotiations, but also offered a broad window of opportunity for the Soviet Union to pressure Europeans. At the same time, public pressure driven by fears of nuclear war also created the opportunity for negotiations.[44]

Third, the political will of European governments to persist with the deployments of intermediate and medium-range forces in their territories was vital to the logic of the Double-Track Decision within NATO. Evidence from the time, to include statements from former Soviet officials, has shown the importance of the combined deployment-arms control approach. That the policy and its implementing strategies persisted and succeeded across various governments in Europe, the United States, and the Soviet Union speaks to the viability of the approach.

Finally, though Double-Track was a focused attempt at an arms control measure aimed at a specific missiles with a certain range, it was not pursued in a static, apolitical vacuum. The Soviet Union was under a broader range of diplomatic pressure stemming from its invasion of Afghanistan in 1979, ranging from Olympic boycotts[45] to economic sanctions.[46] For coercive efforts to be successful, mindfulness of this broader environment is necessary and in some areas coordination is required. In general, a strategy of coercive diplomacy is made up of a threat of (potential) force, sanctions, political isolation, and inducements.[47] In the decade between 1978 and 1987, sufficient effort was made to coerce and induce the Soviet Union into negotiations. Soviet agency should be stressed as well as Moscow was not passive during this period and played a significant role in the development of the late-Cold War arms control regime.

43 Colbourn, 'Euromissiles'.

44 Colbourn.

45 Joseph Eaton, 'Reconsidering the 1980 Moscow Olympic Boycott: American Sports Diplomacy in East Asian Perspective', *Diplomatic History* 40, no. 5 (2016): 845–64.

46 Andries S. Brandsma and A. J. Hughes Hallett, 'Do Economic Sanctions against the Soviet Union Make Sense?', *Interfaces* 14, no. 4 (1984): 53–68.

47 Rob de Wijk, *The Art of Military Coercion : Why the West's Military Superiority Scarcely Matters*, Second Edition (Amsterdam: Amsterdam University Press, 2014), 123.

# Limits of the historical analogy

Historical analogies are never perfect. The European security environment of 2023 is far from that of the mid-1970s and early 1980s. There are real dangers in simply assuming placing nuclear-armed short-and-medium range weapons is the right, let alone feasible, option each time that an adversary needs to be incentivised to negotiate.[48] Such analogies are already being made to make policy recommendations for the short- and medium-range missile threat the United States from China in the Western Pacific.[49] Though many of the differences stem from the circumstances of history, there are several major structural differences that should be highlighted:

1) **Modern Russia is not the Soviet Union.** Though Russia acts very much in the imperial style of its predecessor, the modern Russian state and its political-economic circumstances cannot pretend to the strength possessed by the Soviet Union, particularly in the 1970s. The Soviet Union at the time of the Double-Track Decision was significantly more powerful in both economic and military terms than modern Russia, and this is without yet considering the full impacts of the Russian invasion of Ukraine on its economy and military strength.

2) **NATO is now doubled in size.** It is not in itself a hindrance that NATO is now larger, and continuing to expand. The alliance has significant military assets at its disposal. From a diplomatic perspective, however, negotiations to find a common position on weapons deployments alongside a renewed arms control agenda has a much steeper hill to climb than when its members were mostly located in Western Europe. Achieving common positions between countries as disparate in views as Hungary, Estonia, Poland, Spain, and Canada will be no easy feat of intra-alliance management.

3) **Russia is not the only competitor in the missile space.** The growth of Chinese military power and the proliferation of short- and medium-range ballistic and cruise missile technologies complicates attempts to genuinely reduce risk on a global scale such as in the INF Treaty. Any future negotiations will need to consider the impact of a deal in Europe on balances and perceptions in other regions; short and intermediate range missiles were and are strategic weapons in Europe, in the Western Pacific they are essentially theatre weapons.

4) **NATO and Russia have essentially reversed positions with regards to the role of nuclear weapons in their respective strategies.** During the 1960s, 1970s, and the early 1980s, the Soviet Union together with its Warsaw Pact allies was considered to have the conventional advantage over NATO in terms of numbers. The United States invested in precision-strike and counted on low-yield tactical or non-strategic nuclear weapons to compensate for this imbalance. In its truncated form, with a weakened economy and without allies, Russia has looked to tactical nuclear weapons to compensate for its conventional weaknesses regarding an expanded NATO underpinned by high-end US arms.

Despite these structural differences, several dynamics that impacted the implementation of the decision would likely remain as salient in the current environment as they were in the late Cold War. These are challenges endemic to arms control efforts in general, and not necessarily particular to the case of Europe and Russia:

48 Colbourn, 'Euromissiles'.

49 Gill, 'Exploring Post-INF Arms Control in the Asia-Pacific: China's Role in the Challenges Ahead'.

1. **Understanding trade-offs.** In implementing the Double-Track Decision, NATO leaders effectively traded other negotiations related to conventional troop levels. Future efforts should consider those other areas of cooperation that might be affected and consider how newly introduced efforts may put them on hold.

2. **Staying the course.** The Integrated Decision Document only survived between 1979 and the final signing of the INF due to the willingness of Western European and North American governments to maintain commitment to the approach across shifting political coalitions, contentious elections, and other intervening events around the world. This policy consistency was vital, but took effort.

3. **Flexibility to global dynamics.** The initial INF negotiations which began with a 'zero option' for Europe later expanded to include the entire globe in order to consider the broader risks posed by these weapons to other Western-aligned states. This flexible approach to considering the views of those facing second-order effects ultimately made the Double-Track Decision and its implementation even stronger.

Competitive dynamics have begun to emerge in the Indo-Pacific context. The relationship between China and the United States, alongside select allies, has grown into what has been called 'controlled arms racing'.[50] Mutual mistrust is high, particularly after the full withdrawal from the INF by the US in 2019 was followed by accelerated developments in weapons development aimed at matching Chinese systems. Modest measures may be possible in this current context, such as reviving the Track 1.5 nuclear dialogue, but this is far from substantive negotiation on an arms control or reduction regime in the Indo-Pacific.[51] Such dynamics are nearly analogous to the situation in Europe, and further shows the saliency of those lessons that can be drawn from past successes.

These elements are important for understanding not only analogies from past arms control efforts, but also for how that understanding can inform approaches going forward. They are, however, underpinned by a critical element that was central to the Double-Track Decision: a sound understanding of what the Soviets feared from a military-strategic perspective. The impact of the Pershing-II and Gryphon GLCM deployments shifted the Soviets calculus and introduced fears that their advantages in Europe were diminishing. Any modern approach like Double-Track then demands an answer to the question: What does Russia fear?

50 Gill.

51 Gill.

# Inducing Russia to engage in arms control negotiations: what does Russia fear?

Europe suffers from a leverage deficit towards Russia

What relative advantages would Russia stand to lose and what disadvantages would it stand to gain given current, upcoming, and potential military technologies that the United States and Europeans have or will have? Being specific about these advantages and disadvantages would help in finding avenues for arms control negotiations that Europeans care about, but that still do not excessively undermine strategic stability. Despite having the incentives to restore and reinvigorate the arms control regime, Europe suffers from a leverage deficit towards Russia. In an echo of the 1970s, Russia's development and introduction of the SSC-8 'Screwdriver' missile alongside other systems has created an imbalance in intermediate-range weapons in Europe which prompted the US withdrawal from the INF.[52] Europeans fear both Russia's nuclear arsenal and the quantity and quality of the intermediate-range systems; moreover, Russia has proven itself willing to use missiles against Ukrainian critical infrastructure and civilian targets. If anything, Russia's experience in Ukraine is only going to make it more likely to depend on the threat of non-strategic nuclear weapons for coercive purposes.[53]

The missiles, then, are what Europe fears. What does Russia fear?

## Russian fears

The answer to what Russia fears in the context of arms control with Russia is different to that in the context of NATO deterrence of Russia. Rather than deterring Russia from aggression against NATO member states, the intention here is to incentivise Russia through to do what the United States and Europe prefer it to do. Incentivising in this context inherently has overlap

52 Missile Defense Project, '9M729 (SSC-8)', CSIS Missile Threat, 31 March 2022, https://missilethreat.csis.org/missile/ssc-8-novator-9m729/.

53 Andrea Kendall-Taylor and Michael Kofman, 'Russia's Dangerous Decline: The Kremlin Won't Go down without a Fight', *Foreign Aff.* 101 (2022): 22; Samuel Bendett et al., 'Assessing Russian State Capacity to Develop and Deploy Advanced Military Technology' (Washington D.C: Center for New American Security), accessed 7 March 2023, https://www.cnas.org/publications/reports/assessing-russian-state-capacity-to-develop-and-deploy-advanced-military-technology; Heather Williams and Nicholas Adamopoulos, 'Arms Control after Ukraine: Integrated Arms Control and Deterring Two Peer Competitors', 16 December 2022, https://www.csis.org/analysis/arms-control-after-ukraine-integrated-arms-control-and-deterring-two-peer-competitors.

with deterrence and compellence, particularly in the Russian case wherein compellence is an integral part of deterrence,[54] yet, as the previous section argued, these are not the same.

## General fears

The Russian leadership fears many things from the United States specifically, and NATO, Europe, the West more generally. Many of these have been extensively discussed as motivations for Russian actions since Russia's first invasion of Ukraine in 2014 and then its second invasion in 2022; we focus here on those features of US and NATO nuclear and conventional arsenals, their delivery systems, and their enablers that impact the strategic level. However, the other Russian fears may interact with the perceived advantages the United States and to a lesser degree Europe possess and are worth naming.

At its core, Russia fears that the so-called West is undermining Russian survival, or at least regime survival...

At its core, Russia fears that the so-called West is undermining Russian survival, or at least regime survival, by its encroachment into the Russian sphere of influence. This encroachment was most evident in the enlargement of NATO and the European Union with the addition of former Warsaw Pact members and former Soviet states.[55] Arguably, that threat is not seen so much as a conventional military threat, but as one of cultural influence, democratisation, economic pressure, and political penetration that eventually reaches into the Russia's society and undermines its political system.[56] US and European interventions in the Balkans,[57] Afghanistan, Iraq, and Libya, as well as the Colour Revolutions in Georgia and Ukraine,[58] were seen as the west using its combined conventional and supposed "hybrid warfare" capabilities against other interests.[59] Why these fears matter for those that affect the strategic level is because they contribute to the overall siege mentality of the Russian leadership. In turn, this siege mentality may affect their interpretation of existing capabilities and investments into future capabilities by western states.

54 The logic dominant amongst NATO members that deterrence and coercion are separate concepts is not the case in Russian strategic art. Dmitry Adamsky, 'Deterrence à La Ruse: Its Uniqueness, Sources and Implications', in *NL ARMS Netherlands Annual Review of Military Studies 2020* (TMC Asser Press, The Hague, 2021), 161–75.

55 James Goldgeier and Joshua R. Itzkowitz Shifrinson, 'Evaluating NATO Enlargement: Scholarly Debates, Policy Implications, and Roads Not Taken', *International Politics* 57, no. 3 (2020): 291–321; Joshua R. Shifrinson, 'NATO Enlargement and US Foreign Policy: The Origins, Durability, and Impact of an Idea', *International Politics*, 2020, 1–29; Paul Van Hooft, 'Land Rush: American Grand Strategy, NATO Enlargement, and European Fragmentation', *International Politics* 57 (2020): 530–53.

56 Andrei P. Tsygankov, 'The Sources of Russia's Fear of NATO', *Communist and Post-Communist Studies*, NATO, Russia, and regional security in Europe and Eurasia, 51, no. 2 (1 June 2018): 101–11, https://doi.org/10.1016/j.postcomstud.2018.04.002. Dmitry (Dima) Adamsky, 'Cultural Underpinnings of Current Russian Nuclear and Security Strategy', in *Crossing Nuclear Thresholds: Leveraging Sociocultural Insights into Nuclear Decisionmaking*, ed. Jeannie L. Johnson, Kerry M. Kartchner, and Marilyn J. Maines, Initiatives in Strategic Studies: Issues and Policies (Cham: Springer International Publishing, 2018), 173–98, https://doi.org/10.1007/978-3-319-72670-0_6.

57 Seen as the U.S. attempting to use NATO as an "instrument" through which it could "reshape Europe".

58 Foreign Minister Sergei Lavrov warned that Ukraine and Georgia's entry "would bring about a tremendous 'geopolitical shift' requiring Moscow to 'revise its policy'". Tsygankov, 'The Sources of Russia's Fear of NATO'.

59 Valery Zorkin, 'Apologia for the Westphalian System', Rossiyskaya Gazeta, 13 July 2004, https://rg.ru/2004/07/13/zorkin.html. Tsygankov, 'The Sources of Russia's Fear of NATO'. Tsygankov. Regime change brought by Color Revolutions and Arab Spring seen as hybrid warfare/NGW from the West - use of "warfare capitalizing on indirect action, informational campaigns, private military organizations, special operations forces, and internal protest potential, backed by the most sophisticated conventional and nuclear military capabilities"(Dima) Adamsky, 'Cultural Underpinnings of Current Russian Nuclear and Security Strategy'.

## Nuclear fears

Russia has more specific fears regarding its nuclear arsenal. Evidence from Russian sources underlines that the following capabilities unsettle Russian leaders and experts, and thus suggest what military threats Moscow may respond to with regards to arms control negotiations. [60] The weapons of most particular concern for experts in Moscow were, in order of assessed impact: space weapons, precision strike (including hypersonic capabilities), missile defence, cyber weapons, non-US nuclear weapons, and non-strategic nuclear weapons. Interestingly, the interviewed experts also highlighted a need to address these systems before 2026, and that by 2036 they simply must all have been addressed in some form of agreement,[61] suggesting that these could be meaningful avenues of negotiation for Europeans – and not only the US - to explore.

### Counterforce strike

Russia fears a counterforce strike against its nuclear arsenal by the United States and NATO through nuclear or conventional means. Policymakers and experts consider "aerospace" to be the main threat to Russia secure second strike due to the ability to bypass Russian air and missile defences, [62] with surveyed Russian experts rank it first and mention it most often.[63] The possible US withdrawal from military agreements on outer space combined with the subsequent deployment of weapons, including nuclear weapons, would undermine Russia's ability to prevent a disarming strike.[64] Russia fears highly precise, technologically advanced conventional aerospace strike from the US, and by extension NATO.[65] In particular, Russian leaders the possibility that these advanced precision weapons could be used for a "conventional counterforce attack which...politically devalues [Russia's] nuclear potential."[66] The United States has been investing heavily in a set of advanced conventional weapons under the banner of Prompt Global Strike (PGS), which has been in part planned as a substitute for nuclear weapons.[67] Early reports on PGS noted that its intended targets include road-mobile missile launchers, exposed ICBMs, command and control nodes, air defences, and

60 Leading Russian experts on international security, arms control, and strategic stability were sent questionnaires about which factors "currently have (2022) or will have a tangible impact on strategic stability in the foreseeable future (until 2036) and to list them in the order of their significance". Alexander G. Savelyev and Olga M. Alexandria, 'What Factors Affect Strategic Stability?', *Russia in Global Affairs* 20, no. 1 (2022): 93–111. See also: Adamsky, 'Deterrence à La Ruse'.

61 Savelyev and Alexandria, 'What Factors Affect Strategic Stability?'. See also: 'Угрозы Безопасности России | Журнал «Воздушно-Космическая Оборона»', accessed 21 December 2022, http://www.vko.ru/geopolitika/ugrozy-bezopasnosti-rossii.

62 Dmitry Stefanovich, 'Proliferation and Threats of Reconnaissance-Strike Systems: A Russian Perspective', *The Nonproliferation Review* 27, no. 1–3 (2020): 97–107; 'Всесторонне Проработанной Теории ВКО Пока Нет | Журнал «Воздушно-Космическая Оборона»', accessed 21 December 2022, http://www.vko.ru/oboronka/vsestoronne-prorabotannoy-teorii-vko-poka-net. В.В. БАРВИНЕНКО, 'О попытках ревизии положений теории воздушно-космической обороны', ВОЕННАЯ МЫСЛЬ ВОЕННО-ТЕОРЕТИЧЕСКИЙ ЖУРНАЛ, April 2018, 86. Sub-LEO space weapons and hypersonic missiles fill the 40-100 km altitude window, which is unfit for aerodynamic aircraft, thereby uniting the two domains of air and space. Космос Как Поле Битвы | Журнал «Воздушно-Космическая Оборона»', accessed 21 December 2022, http://www.vko.ru/oboronka/kosmos-kak-pole-bitvy.

63 Savelyev and Alexandria, 'What Factors Affect Strategic Stability?'

64 Ю.В. КРИНИЦКИЙ, 'Направления Развития Форм и Способов Действий Войск (Сил) Воздушно-Космической Обороны', March 2022, 47.

65 Stefanovich, 'Proliferation and Threats of Reconnaissance-Strike Systems', 98.

66 James M. Acton et al., *Entanglement: Russian and Chinese Perspectives on Non-Nuclear Weapons and Nuclear Risks* (Washington, DC: Carnegie Endowment for International Peace, 2017), 40. See also: КРИНИЦКИЙ, 'Направления Развития Форм и Способов Действий Войск (Сил) Воздушно-Космической Обороны', 48. БАРВИНЕНКО, 'О попытках ревизии положений теории воздушно-космической обороны', 86.

67 James M. Acton, *Silver Bullet?: Asking the Right Questions about Conventional Prompt Global Strike* (Carnegie Endowment for International Peace Washington, DC, 2013).

airbases[68]; in short, an enemy's second-strike capability. There is little reason to believe that the target sets discussed in the early 2000s would be significantly different today. Jaganath Sankaran notes that "the vast majority of Russian analysts continue to display a severe 'fear of Western technological superiority'",[69] in place since US and NATO strikes in the Gulf War and Balkans during the 1990s.[70] Indeed, when surveyed, Russian experts rank precision weapons – which include rapid global strike and hypersonic weapons – as a grave concern.[71] Russia's own hypersonic missile program is arguably pre-emptively motivated by fear of US and NATO capabilities.[72]

### Missile defence

Russian concerns about disarming strikes are matched by concerns about missile defence measures that could enable a first strike by blunting the second strike. The Russian position that the US withdrawal from the Anti-Ballistic Missile (ABM) Treaty in 2002 would undermine strategic stability is a notable example. Russian experts have listed missile defence as one of their top concerns.[73] Similar concerns were raised by China when the United States deployed the Terminal High Altitude Air Defense (THAAD) system to South Korea. Both Russia and China have cooperated on joint opposition to U.S. deployments of these systems.[74] In the case of China and its more limited though growing nuclear arsenal, as noted below, U.S. missile defence capabilities might be sufficient to absorb a nuclear second strike after a U.S. counterforce strike, and arguably even a Chinese first strike. In the case of Russia, this would be extremely unlikely, though not impossible according to some experts discussed below. However, Russia fears that U.S. missile defence blunts a potential Russian strike to an unacceptable degree – especially if the systems are deployed in Europe.

### Disruption of C3I systems

Russian apprehensions include the means by which the United States and NATO could disrupt and destroy the C3I infrastructure needed for successful assured retaliation: anti-satellite weapons and cyber weapons.[75] Without operational C3I, it would be difficult for Russian policymakers to ascertain whether an attack is taking place and to communicate the responses. The fear of such attacks is evident in a 2007 article in which such interference was

68 Hans M Kristensen, 'Global Strike: A Chronology of the Pentagon's New Offensive Strike Plan' (Washington, D.C.: Federation of American Scientists, 15 March 2006), http://www.nukestrat.com/pubs/GlobalStrikeReport.pdf.

69 Jaganath Sankaran, 'Russia's Anti-Satellite Weapons: A Hedging and Offsetting Strategy to Deter Western Aerospace Forces', *Contemporary Security Policy* 43, no. 3 (3 July 2022): 450, https://doi.org/10.1080/13523260.2022.2090070.

70 Kristin Ven Bruusgaard, 'Russian Nuclear Strategy and Conventional Inferiority', *Journal of Strategic Studies* 44, no. 1 (2 January 2021): 13, https://doi.org/10.1080/01402390.2020.1818070; Oscar Jonsson, *The Russian Understanding of War: Blurring the Lines between War and Peace* (Washington, DC: Georgetown University Press, 2019), 64–65.

71 Savelyev and Alexandria, 'What Factors Affect Strategic Stability?'

72 Russia fears US hypersonic and other missile capabilities in the 35-40 to 100-120 km altitude range and in the Mach 5 to Mach 15-20 speed range, where the Russian air and missile defences are vulnerable, and which could eliminate a large part of Russia's deterrent. БАРВИНЕНКО, 'О попытках ревизии положений теории воздушно-космической обороны', 85–86.

73 Savelyev and Alexandria, 'What Factors Affect Strategic Stability?'; William J. Burns, *The Back Channel: A Memoir of American Diplomacy and the Case for Its Renewal* (New York: Random House, 2020), 231..

74 Brian G. Carlson, 'China-Russia Cooperation in Nuclear Deterrence', in *Russia-China Relations: Emerging Alliance or Eternal Rivals?* (New York: Springer, 2022), 141–61.

75 КРИНИЦКИЙ, 'Направления Развития Форм и Способов Действий Войск (Сил) Воздушно-Космической Обороны', 47. Of the Russian experts surveyed, 80% mention the risk of cyberweapons. Savelyev and Alexandria, 'What Factors Affect Strategic Stability?'

considered as a strategic level attack.[76] This was only confirmed in a later debate between Russian experts in which it was argued that "Reducing [the] stability and efficiency of enemy information, reconnaissance and command and control," is a vital task in ensuring the survivability of Russia's nuclear arsenal in the event of a war.[77]

# Who fears what?

It is worth noting that Russia's collective defence and security establishment is unlikely to have a coherent collective view of what it is they fear. Even in the centralised context of the Russian state, interservice and inter-agency debates over what constitutes the greatest threats appears to be as rife in Moscow as it is in European and North American capitals. Assessments of precise Russian fears can only ever reach an average level of confidence; yet, past interviews and the trends of military writing over past decades by Russian defence experts do indicate that a combination of offensive and defensive capabilities that create concerns about the survivability of the nuclear deterrent causes the most acute reactions in Moscow.

Who fears what within the Russian security architecture is tied to where they sit. A Strategic Rocket Forces general is more concerned about ensuring the safety of the nuclear forces from a first-strike while a navy admiral is more concerned about the survivability of submarines and the vulnerability of surface ships to anti-ship missiles. Beyond the military, the security services fear Western disinformation campaigns or espionage. The Presidential Administration is concerned with regime security above all else.

This differentiation of fear across Russian circles is important for identifying those capabilities that can compel Russian behaviour, rather than create misperceptions that the United States and Europe are planning for an imminent attack. Procurement and modernisation programmes have created security dilemmas in the past. An arms race is antithetical to the type of tailored military development that functions as part of a diplomatic initiative.

The aim then of understanding who fears what is, in essence, to develop a theory that draws a link between military development of a given capability or capacity and the leverage it can create to spur negotiation. Building leverage of this sort is to balance between creating a situation in which the opponent is falling behind in an area of key sensitivity, but not doing so in a way that causes the fear to reach existential levels.

# US capabilities

These Russian fears are not without a basis. The United States has relied on a counterforce posture for the past decades, as is evident from the nuclear statements from successive US administrations.[78] In fact, after consistent investments in counterforce options since the

76 В.М. БУРЕНОК and О.Б. БУРЕНОК, 'Неядерное Сдерживание (Non-Nuclear Deterrence)', ВОЕННАЯ МЫСЛЬ 12 (2007): 12–15.

77 Dara Massicot, 'Document Review: Lengthening the Bridge: The Role of Current Weapons and Emerging Technologies in Expanding the Pre-Nuclear Phase of Conflict', *Russian Studies (NATO Defense College)*, Russian Studies, 4, no. 21 (29 July 2021), https://www.ndc.nato.int/research/research.php?icode=707.

78 Hans Kristensen, Matt Korda, and Adam Mount, 'The Biden Administration's Nuclear Posture Review', Federation Of American Scientists, 2022, https://fas.org/2022-npr/.

Cold War, the United States has the ability to find and destroy large numbers of (1) missile silos; (2) strategic bombers and mobile launchers; (3) strategic ballistic missile submarines (SSBN); (4) C3I of its nuclear-armed adversaries, and intercept a number of the remaining incoming missiles with its own (5) missile defences, although with varying chances of success at damage limitation to US society and economy. Some US analysts are optimistic; Kier Lieber and Daryll Press argued that the United States in fact was in a position of nuclear primacy in the early 2000s, and could conceivably destroy the nuclear arsenals of China, North Korea, and even Russia with a surprise counterforce attack.[79] Even without the complete destruction of the nuclear arsenals and delivery systems of these states, Matthew Kroenig has noted that the United States can achieve significant damage limitation through its nuclear superiority, based on a nuclear force larger and more sophisticated than a simply secure second-strike capability, with capabilities designed to limit damage in the event of nuclear war.[80] Whether US capabilities would be successful in practice is difficult to know, and whether advocating for damage limitation is wise given the risk of accelerating escalatory dynamics is another matter altogether, as Charles Glaser and Steve Fetter note.[81]

What is clear, however, is that the United States has significant conventional and nuclear means to conduct counterforce strikes. These capabilities can be grouped in three categories, as discussed in the previous section: (1) first strike, through (a) acquisition; (b) targeting through space-based assets; (c) guided precision weapons; (d) stealth strike, plus avionics for low flight, to avoid air defence radars; (c) quieted attack submarines; (2) missile defences, with (a) mid-course and (b) terminal phase interception; and (3) disruption and destruction of C3I through (a) cyberweapons; and (b) anti-satellite weapons.

In short, Russia has real reasons to fear the suite of US capabilities, despite Russia's possession of a full triad of delivery systems and the largest number of deployed nuclear warheads, as well as the largest stockpile of nuclear weapons. What capabilities might be available to European states to induce fears and which of those could be conducive to lead Moscow to arms control negotiations?

79 Keir A. Lieber and Daryl G. Press, 'The End of MAD? The Nuclear Dimension of U.S. Primacy', *International Security* 30, no. 4 (April 2006): 7–44, https://doi.org/10.1162/isec.2006.30.4.7.

80 Kroenig, *The Logic of American Nuclear Strategy*, 3.

81 Glaser and Fetter, 'Should the United States Reject MAD?'

# What European military capabilities could induce Russia to engage in arms control negotiations?

For Europeans to follow a competitive approach to arms control that makes use of Russian fears, they would need to consider four features that distinguish them from the United States, to understand which options exist for them and which do not.

### Focus on conventional weapons:

First, a European approach to inducing Russia to arms control would be inherently centred on their existing and future advanced conventional weapons rather than nuclear weapons. Europe has two nuclear powers at present – France and the UK. It is unlikely for various domestic and international reasons that Europe would add new nuclear powers, despite some rumblings to the contrary;[82] it would also be undesirable both in Washington and Moscow,[83] but also in London and Paris. It would also be difficult in other regional capitals if some European neighbours became nuclear-armed while others remained non-nuclear. The addition of new nuclear states to the European system would be destabilizing; the breakout time of new nuclear states would drastically increase instability by inviting pre-emptive attacks. Nor is likely that the existing European nuclear states will expand their arsenals with low-yield tactical nuclear weapons to the extent that they have sufficient options for crisis escalation. Our working assumption is that the European options are thus likely confined to conventional weapons.

### Consider dependence on enablers

Second, European options centred on existing and future advanced conventional weapons would need to take into account the extent to which they rely on US enablers. European

82 Bert Thompson, Ulrich Kühn, and Tristan Volpe, 'Tracking the German Nuclear Debate', Carnegie Endowment for International Peace, 15 August 2018, https://carnegieendowment.org/2018/08/15/tracking-german-nuclear-debate-pub-72884; Tertrais, 'The European Dimension of Nuclear Deterrence'; Céline Jurgensen, 'L'Europe, La France et La Dissuasion Nucléaire', *Revue Defense Nationale*, no. 6 (2019): 56–68.

83 In addition, Russian experts consider third-country nuclear weapons and non-strategic nuclear weapons. Savelyev and Alexandria, 'What Factors Affect Strategic Stability?'

advanced conventional weapons should be able to function without the support of US Information, Surveillance, and Reconnaissance (ISR) assets; duplication of some of these capabilities is thus in order. Without such an option, the ability of Europeans to actively negotiate with Russia would be limited. Our working assumption is that the existing and future European options should be both seen as part of the NATO deterrent, which depends largely on the US nuclear deterrent, and seen as a set of individual and collective assets that could be used without the United States given current uncertainties about the US commitment to Europe due to structural pressures driving it to the Western Pacific and its domestic polarization.

### Accept trade-offs over short-term stability

Third, Europeans would need to embrace a strategic mindset that accepts trade-offs regarding other policy issues, resources, and short-term strategic stability, and then have the willingness to sustain a competitive approach until it pays off. European states currently draw a clear distinction between deterrence and defence, and have underinvested in advanced conventional weaponry. The notion of coercive diplomacy should be reintroduced into the lexicon of European governments – and European publics as well. This requires incorporating the logic that the threat of force is not diametrically opposed to order. This is not to argue for a 'militarisation' of diplomacy, but rather for enabling negotiators with options beyond retreat and the actual use of force.[84] Our working assumption is that awareness of the structural pressures the United States faces and the addition of NATO members that are keenly apprehensive of the Russian threat, especially after the 2022 invasion of Ukraine, could create internal momentum within Europe.

Europeans should consider systems that undermine Russian self-confidence and induce arms control negotiations.

This momentum has already been seen in European procurement and investments in missile systems. Poland, Romania, and the Baltic states have all procured or already fielded the US-made High Mobility Artillery Rocket System (HIMARS), which will be capable of firing munitions previously proscribed under the INF Treaty. The Czech and Finnish Air Forces are acquiring the dual-capable, fifth-generation F-35. The Norwegian-made Naval Strike Missile, already fielded by Norway, the US, and Poland, is being procured by Canada, Germany, The Netherlands, Romania, Spain, and the U.K.

### Embrace a competitive approach

Fourth, a European competitive approach would require distinguishing what Russia would fear in causing it to fall significantly and inevitably behind in its second-strike capability, without feeding its fear that it has little option but to escalate. Essentially, how can Europe create "good fear" rather than "bad fear" among Russian leaders? Building on the earlier sections, Europeans should consider systems that undermine Russian self-confidence and induce arms control negotiations but (a) avoid forcing dichotomous choices upon Russia that might push it towards escalation; (b) look for extended, but not unlimited, multi-step timelines that allow gradually increasing pressure towards negotiation; (c) take into account specific strategic contextual factors for Russia, like geographic placement or historical enmities, that could impede negotiation.

Having established the logic of this invigorated approach for European states to build leverage, we can now turn to those specific capabilities that could best fit. What then might

84 James Nathan, 'The Heyday of the New Strategy: The Cuban Missile Crisis and the Confirmation of Coercive Diplomacy', *Diplomacy and Statecraft* 3, no. 2 (1992): 333–34.

Europeans have today that Russia fears – and what might they have in the future? Is there a modern equivalent to the Pershing-II or Gryphon GLCM, or a combination of advanced capabilities that might do the trick today? At the strategic level, Russia fears the potential success of United States to conduct a counterforce strategy, aimed at damage limitation of nuclear strikes on the continental United States, which would decimate Russia's second strike. Those capabilities, however, are not fully available to Europeans, nor are they likely to be. Moreover, an exact repetition of the NATO Double-Track decision would be both politically unfeasible and militarily ineffective. Large numbers of nuclear-tipped GLCMs deployed under NATO auspices are unlikely to receive the unanimous support required in NATO's collective decision-making, nor would they likely fit current thought within NATO's three nuclear powers – the United States, UK, and France – that have emphasised the modernisation of air- and sea-based arsenals. While there is renewed emphasis on deterrence and defence within NATO, this does not by default extend to an appetite for hosting forward-deployed nuclear weapons.

The ideal choices can be identified when meeting the criteria of both political palatability and military effectiveness. This assessment also bears in mind the three characteristics that make measures effective in building leverage: their actual effects, their ability to cross salient thresholds, and (in the British and French cases) their potential entanglement with nuclear arsenals.[85]

In the following section, we examine both existing and emerging capabilities that could serve to compel Russian responsiveness to diplomatic overtures towards a revitalised European arms control architecture. We identified several general weapon systems above that are potential areas of concern for Russia. Those existing and future emerging areas that cause concern and fit the criteria used here are: next-generation airpower that uses stealth and function as a system of systems; enhanced missile defence; and advanced conventional missiles. With development efforts in each of these areas, European states could remedy the leverage deficit that they currently have against Russia without American support. We reject cyberweapons and ASAT weapons for the same reasons. We will look now into each in turn and further identify those specific projects that have the potential to compel Russian behaviour.

## "Good fear": technologies available to Europeans that could be conducive to arms control with Russia

We identify three technologies that are likely to invoke "good fear" among Russia and could incentivise them to engage in arms control:

1) airpower, specifically stealth bombers with low altitude capabilities;
2) conventional precision-strike; and
3) missile defence.

85 Cunningham, 'Strategic Substitution: China's Search for Coercive Leverage in the Information Age'.

These can be categorised as "good fear", because they (a) do not confront Russia with dichotomous choices; (b) have a temporal dimension in acquiring them conducive to negotiation; and (c) take into account the Russian context. These three technologies are open to qualitative improvements with technologies that European have or could acquire access to.

## Airpower

The threat of Western airpower has been a feature of Russian military thinking for decades.[86] Demonstrations of stealth and precision strikes by Western forces in Kosovo, Afghanistan, Iraq, and Libya, as part of broader regime change operations, is a noted area of focus for senior Russian leaders.[87] Russian investments into anti-access / air-denial (A2/AD) capabilities have aimed at the calculus of NATO states by reducing the assured air superiority enjoyed by the West in its post-Cold War interventions. This does not necessarily create impenetrable bubbles, but it does re-introduce the factor of attrition for air campaigns.[88]

Though the F-35 has quickly become the platform of choice for fifth-generation aircraft within NATO, there are additional programmes led by European states that can contribute to improved leverage. The Future Combat Air System (FCAS) project led by France, Germany and Spain as well as the British, Swedish, Italian and Japanese Global Combat Air Programme project aims to develop sixth-generation aircraft. Sixth-generation characteristics only heighten their ability to operate in contested airspace, and include concepts such as manned-unmanned teaming with drones, air defence suppression using electronic warfare, and even more ambitious thinking on the integration of directed energy.[89]

The Russian approach along with recent political and technological developments within NATO make it possible for airpower to add particular leverage for European states. Finland's accession to the alliance brings the Russian nuclear bastion on the Kola Peninsula well within range of existing fifth-generation aircraft. Swedish accession would only further strengthen NATO's Scandinavian posture. These capabilities, designed with the deception and evasion of A2/AD systems in mind, have the potential to hold Russia's second-strike assets at serious risk.[90] Such capabilities fit well within the unique Russian context.

Next-generation air platforms fit the causal logic for potentially compelling Russia to the negotiating table. The long lead times in fully developing and fielding a new generation of aircraft gives enough time to support the temporal dynamic of lengthy diplomatic efforts. Fifth- and sixth-generation stealth, low-altitude flight, and capabilities in delivering high-precision missiles makes them flexible enough to blunt a range of potential Russian capabilities, from intercepting cruise missiles to achieving air superiority in the event of conflict. Additionally, the dual-capable nature of these platforms likely creates an additional reason for Russian concern when fielded by French, British, or nuclear-sharing agreement forces.

86 Ven Bruusgaard, 'Russian Nuclear Strategy and Conventional Inferiority'.

87 Anthony H. Cordesman, 'Russia and the "Color Revolution": A Russian Military View of a World Destabilized by the US and the West' (Washington, D.C.: Center for Strategic and International Studies, 28 May 2014), https://www.csis.org/analysis/russia-and-%E2%80%9Ccolor-revolution%E2%80%9D.

88 Keir Giles and Mathieu Boulegue, 'Russia's A2/AD Capabilities: Real and Imagined', *The US Army War College Quarterly: Parameters* 49, no. 1 (1 March 2019), https://doi.org/10.55540/0031-1723.2860.

89 Anil Chopra, 'Contours of a Sixth-Generation Fighter Aircraft', *Indian Defence Review* 35, no. 4 (2020), http://www.indiandefencereview.com/news/contours-of-a-sixth-generation-fighter-aircraft/.

90 Giles and Boulegue, 'Russia's A2/AD Capabilities', 30; Justin Bronk, 'Disruptive Trends in Long-Range Precision Strike, ISR, and Defensive Systems', *The Nonproliferation Review* 27, no. 1–3 (2020): 41.

Altogether, newer air platforms would gradually worsen Russia's position in a way that can be visibly postured.

The challenge with centring an effort by offsets in airpower is that there is not a direct correlation to reducing the missile threat in Europe and that case would need to be made. It is not likely that Russia would agree to negotiate on reductions in missile systems in Europe based on an increase in air platforms *alone*. Such an increase would more properly form the basis for a renewed attempt at conventional forces arms limitations, which could be a natural follow on to any preceding agreements. Nor are these advanced air platforms inexpensive. Air assets could, however, effectively build leverage if they are paired with air-launched cruise or ballistic missiles, the consideration of which continues below.

## Advanced conventional missiles

Newer air platforms would gradually worsen Russia's position in a way that can be visibly postured.

The development efforts that could be pursued that are most analogous to earlier successes are advanced conventional missiles that can serve in an effective counterforce role, consisting of long-range, high-precision land-attack missiles tipped with penetrative high-yield warheads.[91] These would match both the historical record as well as Russian developments in Europe. Mixtures of air-, sea-, and ground-launched cruise and ballistic missiles, with the potential for hypersonic augmentation, would pose challenges to Russia's ability to maintain its reconnaissance-strike complex approach and ensure the survivability of its nuclear second-strike capabilities. In mirroring the Russian capabilities these systems would be non-dichotomous by not immediately threatening Moscow's entire deterrent and are scalable once in place. They can also be enhanced qualitatively by incorporating hypersonic cruise missiles. When married to air, ground, and surface-maritime launch platforms they can be readily demonstrated and postured depending on changing contexts. That they rely on such launch systems they can follow a gradual, multi-step approach by introducing combinations at different times.

We specifically delineate between conventional and nuclear missiles in this argument for several reasons. First is their political infeasibility. The French and UK governments do not engage in nuclear sharing in the same way as the US does within NATO, and Washington is unlikely to extend its nuclear sharing agreements beyond existing allies, despite remarks by Poland in October 2022 of being willing to host American B61-12 gravity bombs.[92] In addition, the US, U.K. and France all maintain the joint declaration by the permanent members of the UN Security Council that a "nuclear war cannot be won and must never be fought."[93] Secondly, such weapons are not only politically unfeasible but also militarily unnecessary. Fighting and winning a 'limited' nuclear war is not a viable approach, both given the lethality of conventional weapons and that limiting such a war to theoretical 'battlefield use' in the European context – where the battlefield and European cities are practically one and the same - risks escalation to strategic countervalue exchanges.

91 David Blagden, 'Strategic Stability and the Proliferation of Conventional Precision Strike: A (Bounded) Case for Optimism?', *The Nonproliferation Review* 27, no. 1–3 (2020): 123–36.

92 Julian Borger, 'Poland Suggests Hosting US Nuclear Weapons amid Growing Fears of Putin's Threats', *The Guardian*, 5 October 2022, sec. World news, https://www.theguardian.com/world/2022/oct/05/poland-us-nuclear-wars-russia-putin-ukraine.

93 White House, 'Joint Statement of the Leaders of the Five Nuclear-Weapon States on Preventing Nuclear War and Avoiding Arms Races', The White House, 3 January 2022, https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/03/p5-statement-on-preventing-nuclear-war-and-avoiding-arms-races/.

Advanced conventional missiles are ideal for creating leverage in that they can credibly hold Russian assets at risk, speak directly to concerns raised by Russian military experts,[94] and do not create the sunk costs that could prevent their eventual reduction and dismantlement following a new arms control arrangement. Additionally, the mobility of their platforms (aircraft, missile cruisers, and road-mobile launchers) allow for greater flexibility to fit political and military circumstances. For example at sea, surface platforms outfitted with land-attack cruise missiles require less diplomatic capital to station them, can be communicated with more easily than sub-surface units, and can be visibly moved to suit the desired message.[95] There has been some scepticism expressed by military experts about the ability of such capabilities to truly hold a second-strike capability at risk[96], though it should be remembered the aim of the investment is not to completely devalue the Russian second-strike capability in one sweep but rather to message that it will become less effective over time.

Advanced conventional missile systems with improved range and speed, to include hypersonic levels, are more flexible and politically digestible than most other potential offensive systems.

There are a variety of ongoing projects to develop and/or modernise such systems. The British-French Future Cruise/Anti-Ship Weapon project, also called Perseus, is a planned air- and sea-launched stealth hypersonic cruise missile with a potential range of up to 1.000 kilometres.[97] There are a variety of US-led programmes that could be procured as well, including the ground-launched Precision Strike Missile (PrSM) and 'Dark Eagle' Long-Range Hypersonic Weapon systems.[98] Joint procurement or cooperative development of such systems is ideal from both a cost efficiency perspective, but is also less politically sensitive than hosting US forces. It has already been seen that the actual hosting of US-operated ground-based intermediate range ballistic missiles would be difficult to achieve with Washington-aligned governments in the Indo-Pacific.[99] That said European states could, as some already have, purchase launch platforms that could in the future be armed with a variety of mid- and long-range missiles that can operate at both super- and hypersonic speeds. Despite current limitations, they are nonetheless capable of reaching targets of significant strategic value.[100]

Advanced conventional missile systems with improved range and speed, to include hypersonic levels, are more flexible and politically digestible than most other potential offensive systems. They can be positioned more easily and used by a variety of platforms. They are also well-suited for joint projects, given the number of existing programmes in other areas in missile defence, more of which appears in the following section. Most importantly, they are a particular concern for Moscow and match Russian developments in such a way that they could be mutually reduced in the future. This matching of Russian actions makes them an 'appropriate' choice, in line with Schelling's thinking on reprisals.[101] Advanced conventional

94 Stefanovich, 'Proliferation and Threats of Reconnaissance-Strike Systems', 98.

95 Sidharth Kaushal, 'Precision Strike in 21st-Century Multidomain Operations' (London, UK: Royal United Services Institute, August 2021), https://static.rusi.org/302_CR_Precision_Strike.pdf.

96 C. Robert Kehler, 'Hearing to Receive Testimony on Nuclear Policy and Posture', § U.S. Senate Committee on Armed Services (2019), https://www.armed-services.senate.gov/imo/media/doc/19-18_02-28-19.pdf.

97 House of Commons, 'Future Anti-Ship Missile Systems: Joint Inquiry with the Assemblée Nationale's Standing Committee on National Defence and the Armed Forces' (House of Commons Defence Committee, 12 December 2018), https://publications.parliament.uk/pa/cm201719/cmselect/cmdfence/1071/1071.pdf.

98 John R. Hoehn, 'Defense Primer: U.S. Precision-Guided Munitions', Defense Primer (Washington, D.C.: Congressional Research Service, 15 November 2022), https://crsreports.congress.gov/product/pdf/IF/IF11353; Andrew Feickert, 'The U.S. Army's Long-Range Hypersonic Weapon (LRHW)', In Focus (Washington, D.C.: Congressional Research Service, 23 May 2022), https://crsreports.congress.gov/product/pdf/IF/IF11991.

99 Jeffrey W. Hornung, 'Ground-Based Intermediate-Range Missiles in the Indo-Pacific: Assessing the Positions of U.S. Allies' (Santa Monica, CA: RAND Corporation, 2022), 41.

100 Blagden, 'Strategic Stability and the Proliferation of Conventional Precision Strike', 128.

101 Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966), 147–51.

missiles are not without risk; with nuclear states that have doubts about their own second strike they can undermine crisis stability,[102] though this is less likely to be a concern in the case of Russia. They can also add additional concerns about strategic decision-making during a crisis among the leadership of both parties.[103] In terms of arms control, advanced conventional missiles could signal to the Russian leadership the need for investments in a return to INF arrangements, as well as transparency and risk reduction measures.[104]

## Missile defence

Past Russian concerns about the Aegis and THAAD ABM systems signposts a sensitivity to any continued efforts to improve ballistic and cruise missile defences. Similar to other areas, missile defence is perceived by Moscow as destabilising as it reduces the surety of its second-strike. Programmes that not only affect Russian second-strike confidence but can also generally improve missile defence capabilities can add to the impression that not only is the Russian defence industry falling behind, but also that its existing arsenal would not be as effective against NATO targets as perhaps planned.

Within the logical framework proposed here, improved missile defence meet the "good fear" criteria in that it is non-dichotomous, it is multi-step and temporal, and can be tailored to the unique Russian context. First, missile defences cannot at this point reach a point of effectiveness that they fully eliminate the surety of a second-strike. They can certainly reduce the damage incurred, but some missiles will make it through. Second, a missile defence system is comprised of several elements, including command and control, sensors, and the interceptors themselves. Each can be modernised and fielded in turn and can be improved gradually so as not to present a technological *fait accompli*. Finally, given that missile defence is directional, in that radars do have to point somewhere, they can be programmed and tested against particular Russian threats. There is some tension in this, in that NATO's ballistic missile defence policy is explicitly "not directed against Russia" and has been messaged that it will not undermine Russia's strategic deterrent.[105] National or multinational efforts to counter specific Russian systems such as the Iskander-launched SS-26 'Stone' short-range ballistic missile through improved ballistic missile defence could run counter to NATO messaging. This is, however, precisely the sort of alliance-based issue that could be addressed as part of an invigorated pressure campaign against Moscow. Were missile defence capabilities to be improved *and* NATO policy be adjusted, this could play an important role in a coercive diplomatic effort.

The German-led European Sky Shield Initiative is the type of long-term programme that can build upon existing capabilities. Though the precise system which the initiative will select is under discussion, the aim is to integrate Israeli-made Arrow-3 missile defence system with American Patriot system and the US, German, and Italian Medium Extended Air Defence

102 Ian Bowers and Henrik Hiim note the risks of South Korea's conventional weapons program for North Korea's assessments of its nuclear arsenal. Ian Bowers and Henrik Stålhane Hiim, 'Conventional Counterforce Dilemmas: South Korea's Deterrence Strategy and Stability on the Korean Peninsula', *International Security* 45, no. 3 (January 2021): 33–36, https://doi.org/10.1162/isec_a_00399.

103 See also: Paul Van Hooft, Davis Ellison, and Tim Sweijs, 'Pathways to Disaster: Russia's War against Ukraine and the Risks of Inadvertent Nuclear Escalation' (The Hague, Netherlands: Hague Centre for Strategic Studies, 2023); Bowers and Hiim, 'Conventional Counterforce Dilemmas', 33–36.

104 Luis Simon and Alexander Lanoszka, 'The Post-INF European Missile Balance: Thinking about NATO's Deterrence Strategy', *Texas National Security Review* 3, no. 3 (Autumn 2020): 28.

105 NATO, 'Ballistic Missile Defence', NATO, 28 November 2022, https://www.nato.int/cps/en/natohq/topics_49635.htm.

System (MEADS). The integration of these systems and the necessary coordination in order to do so will only enhance the existing NATO Integrated Air and Missile Defence System (NATINAMDS).[106] As the Sky Shield Initiative is not an actual NATO initiative, in that it already involves Sweden, it would not at this stage be fully understood as part of the alliance's deterrence and defence posture. However, from a Russian perspective this fine line is unlikely to matter much. European defence coordination in one forum is likely to be seen as having the overall effect of reducing any Russian military advantages.

Defensive systems can only be a contributing element to pressure Moscow, though would be quite effective if combined with other conventional measures.

From a technical perspective, missile defence is not enough on its own to blunt any potential strategic attacks by Russia. The existing Aegis Ashore ballistic-missile defence system, currently operational in Romania and Poland, has been approximately 83% effective in tests,[107] though it is unclear how much fidelity to true operational conditions these tests have been. That remaining percentage creates enough risk in the event of a strategic attack to not rely solely upon such defences. Concern has also been raised regarding the over-reliance of the Aegis Ashore on individual sensors that can pose single points of failure, for example the TPY-2 SPY radar based in eastern Turkey.[108] In response to cruise missiles however, it has already been seen in Ukraine that the threat from cruise missiles can be significantly reduced by the effective organisation and deployment of air defence systems, though not without still suffering significant losses in lives and infrastructure.[109]

Strengthened missile defence in Europe would lessen Russia's confidence in its second-strike capabilities, better enable defence from conventional missiles, and reduce duplicative measures across European states. An important area of focus would be in the deployment of more sensors so the existing NATO Aegis BMD system does not suffer from any single points of failure. This effort has begun for example in the Dutch case, where the navy has modernised its De *Zeven Provinciën*-class air defence frigates for BMD surveillance.[110] A challenge however is that missile defence does not have as direct of a causal link to arms control reductions in offensive weapons. An approach exclusively focused on missile defence does not leave anything that can be traded in a like-for-like fashion. This is not only applicable from a Russian perspective. The political and financial capital for developing these defensive systems would likely create sunk costs that European states would not have an incentive to divest from. Defensive systems can only be a contributing element to pressure Moscow, though would be quite effective if combined with other conventional measures. Table 4 summarises these options.

106 Justyna Gotkowska, 'Germany's European Sky Shield Initiative', OSW Centre for Eastern Studies, 14 October 2022, https://www.osw.waw.pl/en/publikacje/analyses/2022-10-14/germanys-european-sky-shield-initiative.

107 Laura Grego, George N. Lewis, and David Wright, 'Shielded from Oversight The Disastrous US Approach to Strategic Missile Defense' (Cambridge, MA: Union of Concerned Scientists, July 2016), https://www.ucsusa.org/resources/disastrous-us-approach-strategic-missile-defense.

108 Ian Williams, 'Achilles' Heel: Adding Resilience to NATO's Fragile Missile Shield', CSIS Briefs (Washington, D.C.: Center for Strategic and International Studies, August 2019), https://www.csis.org/analysis/achilles-heel-adding-resilience-natos-fragile-missile-shield.

109 Justin Bronk, Nick Reynolds, and Jack Watling, 'The Russian Air War and Ukrainian Requirements for Air Defence' (London, UK: Royal United Services Institute, 7 November 2022), 29–34, https://static.rusi.org/SR-Russian-Air-War-Ukraine-web-final.pdf.

110 Williams, 'Achilles' Heel: Adding Resilience to NATO's Fragile Missile Shield', 6.

## Table 4. European options for conventional investments, effects on strategic stability, and arms control

| | Advanced conventional capabilities | Effects | Possible Impact on Arms control |
|---|---|---|---|
| **"Good fear"** | Airpower | Scalable, long-term time dimension, context-acceptable | Open negotiations on Russian delivery systems, warhead caps, transparency and risk reduction measures |
| | Conventional missiles | Scalable, long-term time dimension, context acceptable | Open negotiations on Russian delivery systems, warhead caps, transparency and risk reduction measures |
| | Missile defence | Scalable, long-term time dimension | Open negotiations on Russian delivery systems, warhead caps |

# "Bad Fear": technologies available to Europeans that are unlikely to be conducive to arms control with Russia

We identify two technologies that are likely to invoke "bad fear" among Russia and are unlikely incentivise them to engage in arms control, while also significantly adding to the risk of strategic instability:

(1) left-of launch cyber and electronic warfare measures.
(2) counter-space, anti-satellite weapons.

As seen in the Cold War case study above, it was not only the number of new American missiles in Europe that worried Moscow, but also their increased capability. The Pershing-II and Gryphon GLCM were specifically chosen as capabilities due to their improved precision and range. Since that time, whole new domains of operations have emerged in which significant leverage can be built. Cyber and space capabilities can hold at risk core elements of modernised armed forces' capabilities, to include those that second-strike capacities rely upon. Rather than a like-for-like approach, these capabilities substitute for more costly developments in areas where the opponent already has a preponderance. This has played a major role in China's strategy against the United States for instance, wherein cyber and counter-space weapons are used to offset the American conventional and nuclear advantages in the Pacific.[111] All three technologies would be difficult to scale, difficult to temporally sequence, and difficult to reverse after negotiations; consequently, they fall under the category of "bad fear".

## Leveraging cyber and electronic warfare

Using the cyber domain in a missile defence capacity could reduce the confidence of Moscow in its existing and emerging capabilities. The technological capacity of states to undertake this type of operation has already been demonstrated, with the most dramatic

111 Cunningham, 'Strategic Substitution: China's Search for Coercive Leverage in the Information Age'.

case being the US programmes to 'hack down' North Korean missiles in 2016 and 2017.[112] Such operations entail activities to breach command and control systems, penetrate supply chains to introduce faulty components, and using electronic warfare equipment to disrupt the intricate systems within a missile. This has been referred to in US publications as 'left-through-right-of-launch' defence, wherein every step of a missile being fired faces one or more systems attempting to disrupt it.[113]

Such undertakings are also risky and would constitute 'bad fear' in several distinct ways. First, it would give the impression of an attempt to completely negate and degrade a state's ability to use any of its missile-based systems, à la the US approach to North Korea. This crosses the line from manipulating deterrence and crisis instability towards actually conducting a first-strike in the cyber domain. This would then become a dichotomous approach that suddenly threatens Russia's nuclear stability. Secondly, in the Russian context such missile systems are entangled with broader nuclear command and control arrangements, the disruption of which could signal deliberate escalation and even the initiation of hostilities.[114] Thirdly, due to the covert nature of these operations, there is no way they can be communicated to develop gradually and thus give time for political appetites to negotiate to grow. There is then no causal logic that links cyber operations to a compellence strategy.

Much of European states' capacities to undertake major cyber operations are still in development, though such capabilities have been built amongst many NATO and EU members.[115] There are a variety of challenges for states for whom a 'left-through-right' cyber and electronic warfare approach may be tempting. First are the various legislative and regulatory changes necessary to allow for offensive cyber operations. This has long been a sensitive topic, including in the United States, and certainly cannot be taken for granted. Doing so within the limited context of missile defence efforts is potentially the most feasible. Second is the military element of developing an appropriate strategy for such an effort that can organise the various agencies that would be responsible. Cyber measures are often divided between civilian intelligence agencies and the armed forces. Finally is the actual conducting of the operation itself, which can be a years-long commitment to disrupting an opponent's systems. Much of the US case in targeting North Korea is unique in that the North Korean regime is deeply isolated, contained to a smaller area, and the missile programme is largely nascent. The most serious challenge in using the cyber domain in a missile defence capacity is the potential for inadvertent escalation. Crippling attacks on missile command and control or the supporting systems that they rely upon could trigger disproportionate escalation that perceives the disruption as a precursor to a first strike.[116]

'Left-through-right' missile defence is a technologically difficult endeavour. Emerging technologies however could begin making it more feasible against a larger and more geographically dispersed missile force such as Russia's. Electronic warfare has seen particular developments that can allow for the disruption of missile systems without interfering in more sensitive

112 David E. Sanger, *The Perfect Weapon: War, Sabotage, and Fear in the Cyber Age* (Brunswick, Victoria: Scribe Publications, 2018), 150–62.

113 Department of Defense, 'Department of Defense Fiscal Year (FY) 2023 Budget Estimates - Missile Defense Agency', Defense-Wide Justification Book (Washington, D.C.: Department of Defense, April 2022), https://comptroller.defense.gov/Budget-Materials/FY2023BudgetJustification/.

114 James M. Acton, 'Escalation through Entanglement: How the Vulnerability of Command-and-Control Systems Raises the Risks of an Inadvertent Nuclear War', *International Security* 43, no. 1 (1 August 2018): 56–99, https://doi.org/10.1162/isec_a_00320.

115 Louk Faesen et al., 'The Cyber Arms Watch: Uncovering the Stated & Perceived Offensive Cyber Capabilities of States', Cyber Arms Watch (The Hague: The Hague Centre for Strategic Studies, 2022).

116 Max Smeets, 'Integrating Offensive Cyber Capabilities: Meaning, Dilemmas, and Assessment', *Defence Studies* 18, no. 4 (2 October 2018): 395–410, https://doi.org/10.1080/14702436.2018.1508349.

command and control networks. Directed-energy weapons have been tested against a variety of target sets, though the ability for laser-based weapons to disable ballistic and hypersonic missiles has yet to be demonstrated.[117] Similarly, capabilities that could jam missile systems in the terminal phase (the final stage prior to impact) have been raised as potential electronic warfare measures, though significant technical hurdles remain.[118]

The potential for an integrated cyber and electronic warfare capability that can act in a 'left-through right' capacity is already limited by the nascency of technology, the scale of the Russian missile posture, and a justifiable hesitancy from European states to engage in this behaviour due to the risks of escalation. Cyber-attacks on the systems upon which missile platforms rely (e.g. targeting centres) offer benefits, though not without an increased risk of escalation which could be counter to arms control aims. Cyber and electronic measures should certainly not be viewed as panaceas that can negate missile threats without resorting to violent action. The greatest contribution such means can make is to disrupt development and testing and to degrade the capacities of select systems by newer nuclear-armed states, rather than NPT states with large and complex arsenals. However within the argument presented here, it can only support a path towards 'bad fear'.

Cyber and electronic measures should certainly not be viewed as panaceas that can negate missile threats without resorting to violent action.

## Counter-space

Counter-space weapons are one of the most frequently raised concerns by Russian defence experts.[119] Put succinctly elsewhere, "Major military powers without space-based assets are in essence deaf, blind and mute, and indeed paralysed."[120] The ability to degrade a state's power in space has moved beyond direct-ascent anti-satellite (ASAT) missiles and has increasingly extended into non-kinetic capabilities such as high-energy lasers and micro-waves, cyber-attacks on ground stations, jamming, and spoofing.[121]

The Russian armed forces rely on space assets for a wide array of military services, including positioning, navigation, and timing (PNT), precision targeting, intelligence, surveillance, and reconnaissance (ISR), and early-warning. Access to these services from space requires at least some measure of control of ground facilities, satellites and other space-based assets, and the spectrum of data links that connect them to Earth and to each other.[122] Each of these segments are vulnerable to some level of disruption though some assets, such as early-warning satellites, operate at an orbit much further from Earth and are thus more difficult to interfere with.

The entanglement between space based nuclear C3I and early warning with other military assets in space poses a similar risk as seen in the cyber example above. Direct-ascent ASAT

117 Kelley M. Sayler et al., 'Department of Defense Directed Energy Weapons: Background and Issues for Congress' (Washington, D.C.: Congressional Research Service, 13 September 2022), https://crsreports.congress.gov/product/pdf/R/R46925.

118 D.F. Reding and J. Eaton, 'Science & Technology Trends 2020-2040: Exploring the S&T Edge' (Brussels, Belgium: NATO Science and Technology Organisation, 2020), 90, https://www.sto.nato.int/pages/tech-trends.aspx.

119 Savelyev and Alexandria, 'What Factors Affect Strategic Stability?'

120 Tim Sweijs and Frans Osinga, 'VIII. Maintaining NATO's Technological Edge', *Whitehall Papers* 95, no. 1 (2 January 2019): 109, https://doi.org/10.1080/02681307.2019.1731216.

121 Todd Harrison et al., 'Space Threat Assessment 2022' (Center for Strategic and International Studies, 2022).

122 Kestutis Paulauskas, 'NATO Review - Space: NATO's Latest Frontier', NATO Review, 18 March 2020, https://www.nato.int/docu/review/articles/2020/03/18/space-natos-latest-frontier/index.html.

missiles have been particularly singled out due to the escalatory risk they pose.[123] Kinetic space capabilities would not fit within the logic described here of compelling Russian thinking. There has already been a political turn against kinetic ASAT weapons with a moratorium on testing such capabilities now supported by the US, U.K., France, Germany, and Japan, among others.[124] Non-kinetic ASAT measures such as blinding an asset with a laser or by jamming a data link could pose an ostensibly lower risk of escalation, though evidence of this is limited to interference with commercial satellites[125] and theorists have argued to the contrary.[126]

...it is nearly impossible to distinguish between counter-space actions that have demonstrable effect from an actual first-strike.

Taken together, the use of non-kinetic counter-space is of limited benefit in helping European states build the leverage useful to compel the Russian government to negotiate. Surely, there are other benefits to militaries and intelligence services that such capabilities offer, but they do not fit within the logic understood here for a dual-track approach. Importantly, space activities are often covert and cannot actually be postured or demonstrated with great effect, further lessening the their impact. Out of the various non-kinetic counter-space possibilities, the most useful could be directed-energy lasers that have the capacity to disable a satellite without destroying it. This capability can be demonstrated and postured in such a way that it can clearly communicate this new threat. There is still some way for such capabilities to mature, however.

Counter-space capabilities in general pose significant escalation risks and run counter to the logic of the argument made here. The entanglement of nuclear C3I and early-warning assets in space with other military and government satellites creates 'bad fear' in a way similar to cyber-attacks in that it is nearly impossible to distinguish between counter-space actions that have demonstrable effect from an actual first-strike. Those measures that can be undertaken with a lower risk of escalation are often so covert that they cannot be demonstrated beforehand or postured in any effective way. They would therefore present Russia with a dichotomous *fait accompi* that could spur unwanted behaviour and could cause unintended ripple effects in other balances, such as with China, as any activity in space is difficult to limit towards one nati n's assets. In the end, arms control in space will require its own regime and counter-space weapons do not substitute effectively for more conventional means such as conventional missiles or air platforms. Table 5 below summarises these options.

## Table 5. Options for conventional investments, effects on strategic stability, and arms control

| | Advanced conventional capabilities | Effects | Possible Impact on Arms control |
|---|---|---|---|
| **"Bad fear"** | Disruption of C3I systems | Dichotomous, abrupt | Bad for signalling, change in Russian posture |
| | Space weapons | Dichotomous, abrupt | Bad for signalling, change in Russian posture |

123 Acton, 'Escalation through Entanglement'.

124 Jeff Foust, 'France Joins ASAT Testing Moratorium', SpaceNews, 1 December 2022, https://spacenews.com/france-joins-asat-testing-moratorium/.

125 Matt Burgess, 'GPS Signals Are Being Disrupted in Russian Cities', *Wired UK*, 15 December 2022, https://www.wired.co.uk/article/gps-jamming-interference-russia-ukraine.

126 Acton, 'Escalation through Entanglement', 60.

# Good and bad fear: technologies available to Europeans and strategic stability

The conventional capabilities that Europe has access to and that are suited to threaten the risk of damage limitation operation through (a) counterforce; (b) defence; and (c) disruption or destruction of C3I – and are therefore potentially incentives to Russia to negotiate over arms control – can be broken down into those that are threatening to Russia with or without confronting it with (i) dichotomous choices; (ii) absence of windows to negotiate; and (iii) mismatch with Russia's strategic context. We find three existing technologies that meet those standards and can be expanded and developed quantitatively and qualitatively: (1) air power, specifically stealth and low-altitude flight; (2) precision weapons, with the potential for hypersonics; and, to a lesser degree, (3) missile defence. We reject cyberweapons or space weapons that would seek to disrupt and destroy Russian communications within its nuclear infrastructure. Table 6 below summarises which technologies are currently available to European states and those which can be further developed with investments in conventional capabilities that are part of either NATO's investment requirements or the European desire to increase their strategic autonomy, or both.

## Table 6. Existing and emerging European weapon systems for incentivising Russian arms control negotiations

| | Existing European capabilities | (potential) Emerging European capabilities |
|---|---|---|
| **"Good fear"** | (a) 4-5$^{th}$ generation air power;<br>(b) Precision weapons;<br>(c) Missile defence(s) | (a) 5$^{th}$ generation and higher air power;<br>(b) Advanced conventional weapons, high-precision and hypersonic missiles; |
| **"Bad fear"** | (a) Cyber-attacks on missile systems and C3I. | (a) AI-assisted left-of-launch cyber-attacks on missile systems and C3I;<br>(b) Space weapons / ASAT |

# Arms control

We can turn now to what type of arms control measures might actually be pursued alongside tailored military development. There are opportunities to reinvigorate existing regimes and to potentially develop new ones. The core question, as in tailoring the decisions above, is what do European states actually want to achieve? The answer should largely be analogous as specific investments are aimed at supporting specific arms control measures. In relation to the investments described in detail above, new or invigorated arms control measures can be pursued in the reduction of missile arsenals and to set the stage for potential follow-on agreements.

The first and clearest goal is a reduction in the Russian missile threat to Europe, to counter the coercive threat represented by its non-strategic nuclear weapons in particular.

### Airpower and advanced conventional missiles

The first and clearest goal is a reduction in the Russian missile threat to Europe, to counter the coercive threat represented by its non-strategic nuclear weapons in particular. Either a new or strengthened existing regime will be needed in order to achieve this. Investments into offensive missile systems (e.g. the Perseus, HIMARS, and PrSM programmes identified above) by European states would be vital to ensure any attempt to build leverage, gain Moscow's attention and drive them towards the negotiating table. There are varying degrees of ambition that can be pursued in this initiative. It can range from meeting to adapt existing mechanisms like the Hague Code of Conduct against ballistic missile proliferation to an expanded focus on cruise missiles and hypersonic technologies that are dual-capable. This is on the 'softest' end that would not entail legally binding measures. This could perhaps occur very early in the initiative but would not require actual steps that would reduce risks. On the other end of the ambition spectrum would be an entirely new INF-style treaty that included binding legal commitments and verification measures. Such a proposal was made in 2019 by former NATO Deputy Secretary General Rose Gottemoeller[127], though the focus was on nuclear-armed missiles rather than the broader missile challenge Europe faces.

At the broadest, such an agreement could include air-, sea-, and ground-launched ballistic and cruise missiles that extend to certain ranges, with a lower ceiling of 500 kilometres and a higher ceiling of 5000 kilometres. This would require a significant amount of political and diplomatic capital in the way of the original Double-Track decision. A potential middle-way for a renewed dual-track approach is through the future of the New START treaty. This treaty between the United States and Russia places limitations on strategic forces (ICBMs, SLBMs, and bombers) but has no provisions for non-strategic delivery vehicles such as shorter range ballistic and cruise missiles. It has been raised by European officials[128] that this deal, as in similar concerns about the SALT Treaty in the 1970s, leaves areas like Europe vulnerable to coercion by only limiting strategic forces. A dual-track style approach could result, in part, on

127 'NATO Nuclear Policy in a Post-INF World - Speech by NATO Deputy Secretary General Rose Gottemoeller at the University of Oslo', NATO, 9 September 2019, http://www.nato.int/cps/en/natohq/opinions_168602.htm.

128 Alexandre Vulic, 'The Future of Arms Control and International Security' (Conference, Brussels, November 2022), https://www.nonproliferation.eu/evenement/eleventh-eu-non-proliferation-and-disarmament-conference/.

the inclusion of European preferences into a renewed New START.[129] The February 2023 announcement by Putin that is suspending its participation in the treaty casts a very dim prospect on this possibility. Additionally, with US concerns about China it is unlikely Washington would agree to significant limits on missile technologies without some involvement or reciprocity from China. Should sudden diplomatic changes occur prior to 2026 however, this medium-term goal could pave the way for a broader measure that goes beyond a Washington-Moscow agreement and includes European states as well, which could address the nuclear warheads ceilings as well as the placement of non-strategic nuclear forces.

Another potential mechanism, arguably with a much longer timeframe, would be a renewal of limitations on conventional forces in the style of the CFE. Certain tailored investments in next-generation aircraft could buttress such an approach by degrading what balance there may be in the air. A limit on conventional forces is the least likely, as both the Russian posture to prosecute its war and the reinforced NATO deterrence and defence posture belies any potential for conventional limits while mistrust remains atmospherically high. As in the case of the INF and CFE, conventional limits will likely need to be on the back-burner in favour of achieving reductions in missile arsenals. Air platforms (e.g. FCAS and Tempest) should be understood as a part of building leverage in such an agreement, particularly if planned and fielded with newly developing ALCMs.

### Missile defence

Missile defence is similar to air platforms in that the actual asset itself is not what is targeted for reduction but would rather be combined with advanced conventional missile procurements to create a growing sense in Moscow that its second-strike assurance is eroding over the longer-term. Russia, and for that matter China, already perceive existing systems as destabilising. The US withdrawal from the Anti-Ballistic Missile Treaty in 2002 contributed to the unravelling of the European arms control architecture over the following two decades. Incremental improvements to existing systems (e.g., installing more advanced missile defence sensors on surface ships) could be sufficient to contribute to building diplomatic leverage through a slow erosion of Russia's missile effectiveness. However, an inclusion of missile defence investments would not imply a desire to reach a new agreement on limitations of missile defences. These investments would simply be another axis of advance for reducing missile stockpiles, and opening the discussion about warhead ceilings. Indeed, given the Russian perception that missile defence systems are in fact offensive systems in disguise,[130] this would serve only to strengthen the logic for investments in cruise missiles themselves.

### Non-proliferation

A final, 'indirect' style approach to reducing the missile risk from Russia would be through broadening and deepening the Missile Technology Control Regime (MTCR) to gradually cut Moscow off from its external supplies of weapons components. The difference here is that part of the diplomatic effort would not actually be directed towards Russia, but rather towards China, Iran, and other states that might have an incentive to supply Russia with components.[131]

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129 Emmanuelle Maitre, 'What Prospects for Arms and Missile Control after the End of the INF Treaty?', Recherches and Documents (Paris: Foundation pour la recherce strategique, February 2020), https://frstrategie.org/en/publications/recherches-et-documents/what-prospects-arms-and-missile-control-after-end-inf-treaty-2020.

130 Maitre.

131 For the Russian defence industry's dependence on imported technologies, see: 'Silicon Lifeline: Western Electronics at the Heart of Russia's War Machine', accessed 1 October 2022, https://www.rusi.orghttps://www.rusi.org.

Such an approach does not necessarily fit within the scope of competitive arms control therefore it is not explored in detail here. It is raised to serve as a reminder of the various regimes that do exist, and to underline that concerns about the increasingly unfavourable overall distribution of capabilities could offer Russia an incentive to take part in talks.

The important trick is not to be overly broad and seek an entirely new arms control regime. Gradual weapons investments alongside patient diplomatic efforts can achieve tailored results to address specific problems. This is the core logic of competitive arms control. The precise regime can be flexible based on states' ambitions, but to address the core fear of European capitals, the missile threat, an invigorated dual-track approach to pursue an INF-style treaty with legally binding limits on ranges and systems would be the most effective. Other areas can be pursued to build leverage, and follow-on agreements addressing broader issues could follow. This would likely move beyond competitive arms control however and thus require a different logic.

Gradual weapons investments alongside patient diplomatic efforts can achieve tailored results to address specific problems.

# Feasibility of implementation: concerns among European governments and publics

How feasible is a dual-track approach within the contemporary European political context? Perhaps unsurprisingly, the picture is a complex one. A majority in European publics have signalled that greater military cooperation is needed within the EU.[132] While this broad statement is roughly in line with the recommended actions above, it is hardly a definitive indicator for public support of specific modernisation programmes. When it comes to European publics, there are stark differences between the states. Majorities in Germany for example still prefer a restraint-driven foreign policy that does not see a military leadership role for Berlin in Europe.[133] In Central and Eastern Europe, the appetite for a more hawkish European stance towards Russia is clear. These states are quite unlikely to have much public support for negotiations with the Russians in the near- to medium-term. This region is hardly monolithic however, and there remain differences between public opinions. A telling element is a preference for an economics-driven approach to responding to Russia over Ukraine over a militarised one.[134] Perhaps most importantly for this region is a continued strong preference for a central role for NATO, which may shape the forum these states seek to pursue a dual-track approach.[135]

Such differences are reflective across and within governments as well. Despite German enthusiasm in February and March 2022 for increased defence spending, also known as the *Zeitenwende*, more recent statements have walked back this ambition.[136] In the Netherlands, the Rutte cabinet has seen mixed messages between the ministries of defence and finance,

132 European Commission, 'EU's Response to the War in Ukraine', Flash Eurobarometer (Brussels: European Commission Directorate-General for Communication, May 2022).

133 Körber-Stiftung, 'The Berlin Pulse 2022/2023: Rethinking Security for Germany and Europe', Berlin Pulse (Hamburg: Körber-Stiftung, 2022), https://koerber-stiftung.de/en/projects/the-berlin-pulse/2022-23/.

134 Dominika Hajdu et al., 'GLOBSEC Trends 2022: CEE amid the War in Ukraine', GLOBSEC Trends (Bratislava: GLOBSEC, 2022), https://www.globsec.org/sites/default/files/2022-05/GLOBSEC-Trends-2022.pdf.

135 Hajdu et al.

136 Hans von der Burchard and Gabriel Rinaldi, 'Germany Backtracks on Defense Spending Promises Made after Ukraine Invasion', Politico EU, 5 December 2022, https://www.politico.eu/article/germany-backtracks-on-defense-spending-promise-warns-about-delays-ukraine-war/.

with defence minister Kajsa Ollengren calling for invigorated defence spending[137] and the finance minister Sigrid Kaag warning that this must not come at the expense of relaxed fiscal rules.[138] Again unsurprisingly, those European states closer to Russia and Ukraine have more consistent messaging on the evolving relationship with Russia. Once again, however, there are differences between governments. The Czech and Slovak Republics are well-aligned with other regional states, particularly the Baltics, while Poland has taken a decidedly more hawkish view on Russia and Hungary a much more neutral and occasionally sympathetic stance towards Moscow.[139] France has perhaps come closest to a dual-track approach, with a clear prioritisation towards increased military spending and a willingness to open both public and back-channel talks with Moscow.[140] It is not entirely clear how explicitly coordinated this approach is, and given the emphasis Paris has placed on couching its efforts in the message of European strategic autonomy, it may well run afoul of Atlanticist governments elsewhere in Europe. Such geographical divides between governments and intra-cabinet debates are a feature, rather than a bug, in European politics. As seen in the Cold War, there were sharp divisions between and within governments even in an era when threat perceptions of the Warsaw Pact were much more consistently shared.

As Europeans seek to reinvigorate the arms control regime, they cannot ignore the politics of and within Moscow and Washington.

Differences in public and government opinions within and between European states is hardly new, and such divisions actually play a role in guiding and even supporting a dual-track approach. A renewed approach is, after all, a competitive one in which anti-Russian sentiments amongst European publics and certain government coalitions will only increase the credibility of the proposed weapons deployments alongside proposed negotiations. Conversely, capitals and publics that are more open for negotiations from the start help to ensure that Moscow's perception remains non-dichotomous and avoid slipping into 'bad fear'. The primary structural lesson of the Double-Track experience of the 1970s and 1980s is that a coordinated and consistent policy can be maintained when the intellectual core of the approach is logical and both strands are pursed with equal vigour – even though this is a necessary but not sufficient condition for success. The Double-Track Decision was a calculated risk that happened to pay off. Additionally, differentiated implementation between states allows for greater flexibility to maintain the approach over time. Debate and dissent are a feature, not a bug, for democratic states and they are not antithetical to consistency and effectiveness.

As Europeans seek to reinvigorate the arms control regime, they cannot ignore the politics of and within Moscow and Washington. Any initiative must be founded on an understanding of its potential reception by Russian officials. Recalling the Cold War case, intelligence assessments argued that such a dual-track approach would be effective based on reporting from the Soviet Union. This allowed NATO to take an overt policy stance and make clear its intended approach. If either of the two strands of the approach are pursued without the overall intent being communicated clearly, this could lead to counterproductive misperceptions in Russia and amongst European publics. Whatever precise form the initiative ultimately takes must be public and transparently pursued. In their relations with Washington, European states may

137 Katherine Walla, 'Europe "Must Get Its Act Together" on Defense, Says Dutch Defense Minister', *Atlantic Council* (blog), 15 July 2022, https://www.atlanticcouncil.org/blogs/new-atlanticist/europe-must-get-its-act-together-on-defense-says-dutch-defense-minister/.

138 Sam Fleming, 'Dutch Warn against Relaxing EU Fiscal Rules to Spur Defence Spending', *Financial Times*, 6 March 2022, https://www.ft.com/content/5027a248-385a-4e8b-8a5f-2f186a25a867.

139 Benjamin Tallis, 'Central-Eastern Europe Pioneers a New Idealism', *Nepszava*, 9 May 2022, https://nepszava.hu/3156208_utat-tornek-kozep-kelet-europa-idealistai.

140 Pawel Zerka, 'The Case for Defence: How Russia's War on Ukraine Has Proved France Right – European Council on Foreign Relations', *ECFR* (blog), 21 November 2022, https://ecfr.eu/article/the-case-for-defence-how-russias-war-on-ukraine-has-proved-france-right/.

find an even more difficult political problem than with the Russians. The United States has a history of opposition to initiatives that hint towards an autonomous European defence identity, particularly when it has the potential to exclude American defence industry.[141] Congressional politics will be especially relevant once actual platforms and systems are selected for funding. Despite this however, Washington may welcome new European-led diplomatic efforts that would otherwise require its leadership as it continues its shift towards the Pacific. The trick with Moscow and Washington then is to clearly and publicly state the approach's intent and to create avenues for third-party (i.e., American) involvement if needed.

An important functional question for European states to consider in such an approach is who will actually spearhead this effort and through which forum might it be pursued? A common NATO or EU approach is perhaps most logical given the existing mechanisms to build and maintain cohesive policies, though as mentioned above in the limits of the historical analogy a larger NATO will be harder to manage internally and the EU has yet to find an effective foreign policy footing. Such coordination could make sense when agreeing a generally common approach, though the contemporary political context would need to leave significant room for differences in implementation. National and 'minilateral' efforts to develop specific projects, such as a hypersonic intermediate-range cruise missile, need not be under the actual management of the bureaucracies of NATO or the EU. Indeed, as seen in the case of the Belgian and Dutch carve outs in the Double-Track decision, this flexibility is necessary in order for a common policy to be maintained over years if necessary. Beyond coordination, however, will be the challenge of leadership in this effort. A multilateral effort amongst European states is the most clear option, but still the initiative would require a diplomatic spearhead from at least one of the most highly motivated capitals. The Double-Track decision took nearly eight years of intensive intra-alliance wrangling and negotiations with Moscow which required significant investments in time and resources by the United States. From a European perspective it is not readily clear who is best placed to take on this lead role which has often been outsourced to Washington.

141 Erik Brattberg, 'How Washington Views New European Defense Initiatives', Carnegie Endowment for International Peace, 3 March 2020, https://carnegieendowment.org/2020/03/03/how-washington-views-new-european-defense-initiatives-pub-81229.

# Conclusions

After three decades of relative quiet, strategic stability is again declining due to increased geopolitical competition both globally and regionally, as well as various technological developments. Multiple parts of the arms control regime have collapsed or imminently will. In December 2022, the Bulletin of the Atomic Scientists, the group that maintains the 'doomsday clock', published its annual review in which they stated "the global nuclear order [is] in shambles."[142] The collapse of the INF and CFE treaties and the Russian invasion of Ukraine has raised the profile of military threats to Europe in a way not experienced since the collapse of the Soviet Union.

The situation is far from hopeless, however. Both the EU and NATO are twice as large as in the past, the European defence-industrial base is gaining new investment, and there is a widely shared perception of the threat posed by Moscow's behaviour. There is a window of opportunity for a renewed dual-track style approach that can reduce the risks to Europe's collective security. Russia is diplomatically isolated and its military has floundered in Ukraine. With an eye towards the US shift in focus to the Indo-Pacific, Europeans have an obligation to shore up their conventional deterrence of Russia and strengthen their sovereignty; they also have an opportunity to exert their own leverage on Russia and induce it to save at least part of the arms control regime.

Europeans have an obligation to shore up their conventional deterrence of Russia and strengthen their sovereignty.

142 François Diaz-Maurin, 'The 2022 Nuclear Year in Review: A Global Nuclear Order in Shambles', *Bulletin of the Atomic Scientists* (blog), 26 December 2022, https://thebulletin.org/2022/12/the-2022-nuclear-year-in-review-a-global-nuclear-order-in-shambles/.

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