German Leadership in Arms Control:
Three Pillars to Achieve More Realism

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Arms control is traditionally at the core of Germany's cooperative security approach. It is therefore a natural leader for a new Western arms control policy. But Germany would have to overcome the Cold War approach to arms control that no longer suits today's security environment. A new approach should build on three pillars: security, military, and alliance realism. While such a change entails risk and uncertainty for German decision-makers, the price of upholding existing outdated arms control architectures is already higher.

German Arms Control Leadership: Caught between Cold War and New Realities

Germany is a natural leader in arms control. Strengthening and supporting arms control policies has been a priority of post-war Germany for decades, and it has become an essential element of Germany's foreign policy DNA, which is wholeheartedly supported by the wider public. Political and societal support are mutually reinforcing. Unfortunately, the debate about arms control that ultimately drives policies and expectations toward arms control only marginally takes into account the radical change of those military and non-military factors that define the effectiveness of arms control.

Defense has transformed into an ecosystem in which the network approach to warfare and the resulting mix of military capabilities has a higher value than a specific weapon system. Initiated in the 1980s, this change still poses serious challenges for arms control. It was one of the reasons for the new initiatives that both German foreign ministers, Frank-Walter Steinmeier and Heiko Maas, have launched in 2016 and 2018. To allow national foreign policy actors the effective implementation of these initiatives, Germany has to narrow the gap between its traditional domestic mainstream understanding of arms control and the new ways of warfare and their foundations.

German Cold War Tradition Still Dominates in Arms Control Thinking

For Germany, arms control constitutes a central pillar of its security policy and its aim to create security through multilateral cooperation. Generations of political decision-makers from Willy Brandt on have praised arms control and disarmament as Germany's prime and successful answer to the perceived militarization of foreign policy and as an important contribution to global peace. This has shaped both the public and political understanding of these topics and created the overwhelmingly positive notion arms control enjoys in the German public. Part of this perception is that arms control and disarmament are almost the same and that both should lead to the disposal of large numbers of weapons. This understanding is not necessarily in line with the purpose arms control has, in reality, been designed for: arms control does not aim to primarily reduce weapons but to reduce the risk of war through creating transparency and trust about military strategies and to limit destabilizing military options.

Acknowledging Today's Realities in Military Affairs

If Germany seeks to pursue effective arms control policies, it has to take into account the new security challenges facing Europe and the Western alliance. Classic arms control – especially in the domain of conventional weapons, as devised during the Cold War – was developed to control the military options of large formations of conventional forces, organized in two military alliances with somewhat similar structures, prioritizing mechanized warfare against a peer competitor.

Today, these arms control instruments are ill-equipped to cover the growing variance of armed forces in Europe caused, for example, by diverging missions and the degree of technological innovations introduced. Military options – or what militaries call capabilities – that armed forces offer are largely characterized by the quality of their equipment and personnel. In addition, capabilities are about the elements that are needed to organize armed forces as an effective political instrument – for example, doctrines and training. Lastly, while Germany supports the rise of multinational command and force structures in Western Europe, the existing arms control instruments are unable to address such structures and the resulting capabilities.

Even though arms control is unlikely to ever regulate "soft" factors such as doctrines, it can regulate their outcome, which is military force. Innovative arms control instruments like asymmetrical arms control can include the quality of forces as opposed to only regulating quantitative factors. Moreover, so far, arms control only has a marginal (if any) ability to address crucial non-military elements that define the effectiveness of the overall defense sector. This concerns, for instance, the role that the defense industry and commercial innovation play in many armed forces around the world.

Hence, the necessary adaptation of arms control goes beyond some new equipment types straight into the core of a future arms control approach. The rationale remains valid: arms control is about mutual strategy control to ensure stability together, rather than against each other. It allows the minimization of the risk of war by limiting one's own military options, especially those that the adversary perceives as destabilizing. However, to increase strategic stability between the participating parties, it has to become much more flexible and comprehensive. This challenges Germany's general understanding of arms control as a mechanism to restrict and limit weapon systems.

New German Initiatives Struggle to Make Headway

German foreign policy tries to walk a difficult path between the traditional approach to arms control and disarmament and acknowledging new realities. In 2016, following on Russia's annexation of Crimea and its destabilization of the Donbas, then Foreign Minister Steinmeier launched an initiative that intended to stimulate a debate about new arms control initiatives and instruments within the Organization for Security and Co-operation in Europe (OSCE) as the primary forum for arms control matters in Europe and among like-minded states in particular. This initiative focused largely on conventional arms control issues. In 2018, in response to US and Russian announcements to leave the INF Treaty, current Foreign Minister Maas initiated a process that shall facilitate thinking about arms control solutions to challenges presented by emerging technologies and resulting weapons systems. Both initiatives are in response to crises related to military affairs. Beyond reiterating the need for arms control and disarmament, they propose to introduce new elements for arms control and refer to new risks and categories of weapons, such as drones and hypersonic weapons.

However, the attempt to integrate an equipment-centric view – aiming for quantitative ceilings or even numerical parity with emerging diversity of military capabilities and their qualitative character – into one approach seriously complicates the efforts to adapt arms control to the new security realities. It may fail to re-establish arms control as a military-strategic instrument for more general risk management and to prevent arms races.

Moreover, it is not only the reluctance in Moscow and Washington to engage in new arms control efforts that limits the likelihood for success of Germany's new initiatives. It is also the use of the disarmament rhetoric and classical narrative of a new Cold War that raises high, sometimes exaggerated, expectations in Germany about what arms control could achieve if only implemented properly. Sadly, the numerous efforts by the expert community to chart new ways to overcome the chronic crisis of post-Cold War arms control and catapult it into the 21st century have also not led to a more realistic political level of ambition. This national debate even discourages those German partners in the EU and NATO needed to implement new agreements.

The Need for a More Realistic Approach to Arms Control

From today's perspective, arms control is just one instrument to prevent war – not the only one, and often not the central one. Yet arms control can still play a crucial role if built around three elements: a) security realism: arms control can only manage a few but very important risks and threats; b) military realism: arms control has to build

on the basic functioning of military capabilities, their current state, and the foreseeable future; and c) alliance realism: arms control can only work when closely coordinated with Germany's political and military partners and allies in the EU and NATO.

Security Realism

Today, risks and threats to stability and security derive from a large variety of sources. The ever-changing character of warfare dictates that arms control can only manage a few of them and may best contribute to wider security when used in a concert of other tools like comprehensive crisis management and prevention, but also deterrence. Limiting the expectation of what arms control can deliver helps to focus on its core strength, carefully explores new options, and avoids frustration.

States are highly vulnerable to non-military tools and soft power, including propaganda and economic blackmail, but also the (mis)use of dependencies and connectedness during a cyberattack or through social cohesion. This is even more true for democratic states as, for instance, Russia's use of cyberwarfare and disinformation shows.

Yet even within what is commonly labeled war, changes are taking place, further diminishing the potential impact of arms control instruments. On the one side of the spectrum, war is increasingly fought by nonstate actors (e.g., paramilitaries in Ukraine). That arms control can be useful in this context has not been proven by many examples. On the other side of the spectrum, nuclear weapons are returning to prominence on the world stage. While outside the conventional domain of arms control in Europe, they significantly influence the balance between conventional and nuclear capabilities – and, thus, the conventional balance between countries – and sometimes triggered their efforts to modernize conventional systems and increase capabilities.

The existing arms control agreements on strategic nuclear weapons between Russia and the US do not cover tactical nuclear weapons and are, so far, detached from other arms control regimes. Hence, future arms control initiatives must more urgently address the link between conventional and nuclear capabilities.

Military Realism

Since the end of the Cold War, the ways in which many militaries wage war has changed fundamentally, as was signified by operations ranging from Desert Storm in 1991 to Serval in 2013. New military capabilities have become more important, and they are less based on single systems or weapons; their introduction has transformed defense into an ecosystem, where the network has a higher value than a specific weapon system. Hence, the risks that conventional capabilities pose have changed. New categories and approaches are needed to identify what should be controlled and how it can be controlled.

Changing Size and Structure of Forces

Armed forces in Europe have shrunk by 50 percent since the end of the Cold War. Smaller, but much faster, and more capable armed forces have replaced mass armies. This applies especially to the United States and Western Europe, but also to Russia. With its snap exercises, Moscow has demonstrated its ability to move very large forces very swiftly. Thus, military planners on all sides have to prepare for surprises. At the same time, other European states (Greece, Turkey, Armenia) have largely kept their force structures from the Cold War. These diverging developments create a diversity in forces that is impossible to regulate through the prevailing symmetrical arms control instruments from the last century, like the Treaty on Conventional Armed Forces in Europe (CFE-Treaty). An approach to asymmetric arms control that provides more flexibility for all participating states while retaining the principal advantages of arms control – such as creating certainty and lowering the risk of a surprise military attack – is urgently needed to increase the effectiveness of conventional arms control.
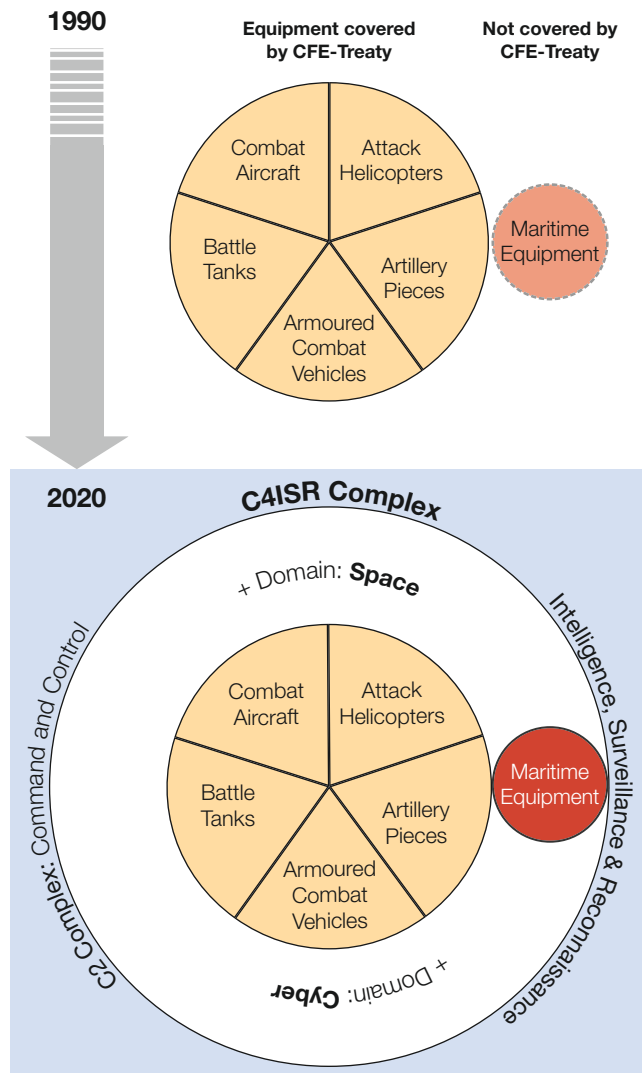
The Shrinking Relevance of Classical Weapon Platforms

In the 1990s, conventional arms control and transparency measures in Europe focused on five types of conventional armaments and equipment that were limited by the CFE-Treaty: battle tanks, armored combat vehicles, artillery pieces, combat aircraft, and attack helicopters. As the upper part of Figure 1 shows, other relevant military categories were not covered, especially maritime equipment.

Although the five categories of treaty-limited equipment (TLE) remain relevant in sub-regional conflicts, smaller and highly mobile formations are now comparatively more important. Their key features – such as special forces, logistics, and cyber – considerably challenge arms control in the 21st century.

As the lower part of Figure 1 shows, in today's environment the TLE constitutes but one layer in a complex web of a modern military capabilities. Not only have naval assets gained significant importance, but new technologies and ways of warfare have generated new types of relevant capabilities and categories. The latter refers to the new domains on which modern warfare depends: Space and Cyber.

Figure 1: Equipment/capabilities relevant for arms control in the 1990s and in the 2020s

Source: Own Data Collection and Representation

Network-Centric Warfare

The term network-centric warfare catches another critical feature of today's military capabilities: any capability is generated by a network of sensors and shooters, based in the air, at sea, on land, or in space or cyberspace. Digitalization has made command and control far more effective and faster, for example, in headquarters. Through its access to a large variety of sensors called ISR (Intelligence, Surveillance, and Reconnaissance), command and control gains a much higher awareness of the situation on the battlefield. Together, this creates the so-called C4ISR-Complex (Command, Control, Computing, Communication, Intelligence, Surveillance, and Reconnaissance). The network links any sensor to the C2 (command and control) posts, as well as to any shooter or weapon or other capability needed – like helicopters to ensure mobility or tanker aircraft that provide air refueling. In this network, the importance of single platforms – the main category in

Cold War arms control – is diminishing. At the same time, the legions of soldiers that ensure logistical and combat support, such as reconnaissance, have become more important than the top gun fighter pilot.

Multinational Formations and Capability Clusters

Another emerging characteristic of western warfare is that multinational formations and international organizations like NATO and the EU deliver capabilities. The key military purpose of multinationalizing forces is to overcome the limited range of national capabilities and to increase their effectiveness. This can best be illustrated by looking at how modern air operations work today. They have to be thought of as capability clusters that not only comprise fighter jets, but require support from tanker planes to increase their range, as well as aircraft for electronic warfare to jam enemy radars – in order to deliver what militaries call "the effect." Most EU or NATO states only have one or two of the major capabilities that are required to conduct modern air operations and thus depend on each other. They pool the elements in clusters that are composed of different national contributions. Inevitably, this creates structures where the nations today depend on each other to conduct complex operations.

This poses a conceptional problem for German approaches to arms control: Germany favors and actively builds multinational formations, like the Multinational Headquarter North East or the Euro Corps. As multinational capability clusters are likely to gain importance in the future, arms control needs to shift focus from national capabilities to multinational ones. Solutions need to be developed that factor in multinational capability clusters. Moreover, these have to be discussed among Western allies, since non-NATO and non-EU states involved in European arms control regimes do not use such organizational patterns to the same degree.

Alliance Realism

This is where alliance realism matters. Germany cannot initiate a new arms control policy without its allies. Effective negotiations with Russia and other states need consensus among the closest security partners first. Berlin has regained respect in NATO thanks to its substantial contribution to the alliance's deterrence and defense measures since 2014. Yet, this respect is based on the assumption that Germany acts to increase the security of all NATO allies, takes into account their worries, and coordinates initiatives.

This is why Germany should support alliance deterrence as much as it supports arms control. According to NATO's 1967 Harmel Report, security is the result of

deterrence and dialogue – with arms control being a key component of the latter.

Confronted with an adversary like Russia – who is willing to move borders by force and rejects the Helsinki and post-Cold War acquis – dialogue without proper deterrence and defense capabilities would be a dangerous indiscretion. Yet, without political contact between adversaries, even the most robust deterrence posture risks ambiguous signaling, unintentional escalation, greater instability, and eventually heightened insecurity. Beyond the imminent danger of armed conflict, a lack of effective arms control also increases the probability for arms races, which can easily decrease prosperity in all participating states and increase the introduction of potentially dangerous technologies without proper prior consideration (e.g., hypersonic flight vehicles).

The Way Ahead

In order to make arms control fit for security policy in the 21st century, the desire for a peaceful and secure world is the right starting point, but it is not enough. Germany should rethink arms control as an element of military and security strategy, in concert with other instruments and its core partners. As the United States is apparently not counting arms control among its priorities at the moment, Germany should feel even more encouraged to lead the reflection on the proper link between deterrence and arms control within the EU and NATO.

A new and realistic approach to arms control should start out with a systematic analysis and monitoring of the functioning of the military and of the current state and foreseeable future developments of military capabilities and their implications for German and European security interests. The ongoing effort to map trends in force postures and military exercises within the framework of the Structured Dialogue in OSCE is a useful starting point. But it has to be complemented with a continuous monitoring effort of military capabilities as well as the wider defense sector. In order to assess the threat environment more appropriately, the monitoring effort should be embedded in a broader approach that links military and other risks and threats. Limiting the monitoring to conventional military capabilities in today's and tomorrow's security environment would only give a very partial picture of the threats that need to be tackled.

Germany's new approach can build on parts of the existing arms control agreements that are still relevant and useful today – such as the transparency and verification mechanisms embedded in the Vienna Document and the Open Skies Treaty – but scratch and re-build those parts that are no longer effective, such as the CFE-Treaty. Holding on to ineffective arms control mechanisms only binds resources that could be better deployed in the development of a successor agreement.

The re-think and design change of arms control suggested here entail risk and uncertainties. However, the costs of sticking solely to old mechanisms of arms control and ignoring new trends in capability developments already outweigh the necessary efforts to devise a new approach. This new approach can build on still effective elements and principles but updates them with measures that account for the current and future evolution of threats.

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