

# **Implications of the COVID-19 Pandemic for the North Atlantic Treaty Organization (NATO)**

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## **Introduction**

The COVID-19 pandemic has rapidly evolved into a global crisis, exacting a huge toll from individuals, communities, economies, and societies. Against the backdrop of profound and sweeping changes in almost all aspects of life around the world, many national, regional, and international organizations have found it difficult to respond to the challenges faced. The North Atlantic Treaty Organization (NATO) has been no exception. Despite its large-scale military capabilities and logistical operations that span the globe, NATO and its member countries have struggled to tackle the transnational threat posed by COVID-19—to contain the spread of the virus and mitigate its impact, as well as to support civilian responses and help maintain overall social resilience.

Though it is too early to fully ascertain the long-term economic, political, military, and security impacts of the coronavirus and its far-reaching repercussions for states in both the domestic and international arenas, this essay argues that the COVID-19 pandemic, apart from triggering public health, economic, and security concerns, is likely to serve as a catalyst for a considerable shift in perceptions of the global security environment and major security threats, and of how best to respond to these. In other words, the essay seeks to shed light on a strategic shift in the concept of global security.

In it, I first describe the characteristics of the COVID-19 pandemic as a global security threat. Subsequently, I explore how NATO has adapted and adjusted to the new circumstances created by this crisis, referring to three dimensions, all of which had the potential to undermine the stability and security of the alliance: the organization's logistical and operational deployment; its efforts to counter disinformation; and its responses to the growing challenge of cyber-defense.

## **1. The COVID-19 Pandemic as a Global Security Threat**

Since the dawn of history, humans have experienced waves of pandemic diseases that have caused hundreds of millions of deaths. Over the past century, pandemics such as the Spanish Flu (1918-20),<sup>1</sup> SARS-CoV,<sup>2</sup> and HIV-AIDS have posed a risk to the stability of large communities and many regions across the globe,<sup>3</sup> inflicting a

considerable economic impact and potentially endangering the stability of some states.<sup>4</sup> However, the novel coronavirus labeled COVID-19, which was first observed in December 2019, in Wuhan, Hubei Province, China, has rapidly evolved into the largest global public health crisis<sup>5</sup> faced in modern times,<sup>6</sup> posing an unprecedented threat to humanity.<sup>7</sup>

Since it first appeared, the disease has spread worldwide infected over 83 million people and claiming 1.8 million deaths as of 4 January, 2021<sup>8</sup>. Following its emergence, China responded rapidly and decisively by implementing strict quarantine measures and informing the World Health Organization (WHO) of the outbreak<sup>9</sup> and the viral genome data of COVID-19.<sup>10</sup> China also shared its epidemic control experience with the international community, and provided critical medical personnel and logistics, including donations of millions of essential medical commodities.<sup>11</sup> The preventive actions and containment measures taken worldwide in response to the virus—including contact investigation and social isolation policies such as closing educational institutions, limiting work and business, and restricting people’s movement—have had an immediate and significant impact not only on societies and economies around the world, but also on global security.

Clearly, the COVID-19 pandemic is unprecedented in its global reach and impact on the interconnected world economy, posing formidable challenges to policymakers. It has created worldwide economic fluctuations affecting the majority of the countries around the globe and triggered the deepest economic recession in nearly a century, accompanied by a dramatic rise in unemployment and sharp decline in production and trade. Against the backdrop of the extraordinary uncertainty surrounding COVID-19, as the pandemic continues to progress and many containment measures remain in force, a World Bank report<sup>12</sup> has estimated that it will result in a 3.7% contraction in exports from China, declines in exports from Canada, Europe, and the United States of around 4.5%, and an overall decline in global exports of 4.6%. In addition, it estimates a significant potential loss of income in affected countries, with global GDP declining by up to 3.9%, and with developing countries hit the hardest (4% on average, but some over 6.5%).

In attempting to assess the pandemic’s impact on global security, studying the response of NATO (as the world’s largest military alliance) can illustrate the complex nature of the security implications of the crisis and give us some indications about the transformation of the global security realm. Although it is difficult to predict the overall security impact of the coronavirus crisis, given that it has also intensified and deepened many problems that existed beforehand, there are two issues that already clearly stand out: Changes in the concept of global security, and the importance of a comprehensive approach.

### ***1.1. Shifts in the Concept of Global Security***

The coronavirus pandemic has dramatically changed the traditional frame of reference for what constitutes a security issue, by thrusting a public health challenge center stage as the world's most pressing non-military threat to human security. Clearly, COVID-19 fails to meet the military-oriented definition of a security issue, and the threats and challenges posed by the crisis are not easily countered using conventional military capabilities and measures. Moreover, the pandemic has clearly demonstrated the growing dependence of national governments on civilian resources and the resilience<sup>13</sup> of their populations, as well as on the good will and cooperation of their counterparts in other countries.

In "classic" militarized (use of force) security threats, the main target of the threat and the main object to be secured is the state. COVID-19, however, presents a very different set of challenges: it is individual citizens who are the "target to be secured," yet simultaneously it is these same individuals who are the source of the spread of the disease. The complex nature of this situation has led to policy choices (far beyond the defense and security realm) that would have been difficult to envisage prior to the pandemic, such as harsh social distancing restrictions, enforce mask-wearing, business and school closures, and lockdowns. The impact of these decisions has been severe, not only in terms of their implications for individual freedoms and democratic governance, but in terms of the very foundations of society, as peoples' livelihoods and overall wellbeing have been hugely affected,<sup>14</sup> as have the economies and safety of states around the globe. This situation has significant potential to deteriorate into major instability, including economic breakdown, political unrest, and civil disorder.

Thus, the coronavirus has served to highlight the complex, ambiguous, and multifaceted nature of global security in today's world, as it has grown to encompass a variety of different forms and dimensions, involving multiple state and non-state actors. In this modern reality, military capabilities are not sufficient for coping with global security challenges; rather, civilian infrastructures and resilience, as well as informational and media efforts, are essential components for any global security strategy. Indeed, the pandemic has provided a robust test of societal resilience in many countries, focusing attention on resilience as a central element of any defense strategy, and thus broadening accepted conceptions of "security issues."

## ***1.2. The Importance of a Comprehensive Approach***

It is now clearly understood that COVID-19 poses a very real threat not only to public health and to the national and international economy, but also to social cohesion in countries around the world and to the global geopolitical situation. As such, it demands no less attention from a security standpoint than a conventional military threat, yet addressing it effectively requires a far more complex approach than does conventional warfare. This approach involves multiple actors working in concert to implement policies in response to the crisis, including governments, health agencies, research

institutions, civil society, the private sector, police forces, militaries, and not least, citizens in their communities. It calls for flexible balance and coordination between civilian and military capabilities and resources, along with a new comprehensive framework that is primarily based on civilian organizations and essential social services, emphasizing prevention, preparedness, and strategic planning.

This comprehensive approach combines multilateral relations and international cooperation between states, economies, and health institutions (with the WHO playing a central role), as well as major technology and media organizations whose work and expertise has greatly contributed to the fight against the COVID-19. The framework for international security cooperation and collaboration provided by NATO has much to offer in this context. Though the initial reaction to the spreading pandemic was perceived as inefficient and lacking in solidarity, NATO, with its mechanisms for coordination among the national armed forces of its member states, has made a valuable contribution to the fight against the virus and underscored the strength of the alliance.

## **2. Implications for NATO**

For the first time in its history, NATO has faced a simultaneous attack against each of its member states. Despite a recent history of mounting tensions and disagreements between NATO members—including disagreements over disparate defense spending and burden-sharing,<sup>15</sup> territorial disputes between Turkey and Greece in the Mediterranean,<sup>16</sup> tensions over natural gas pipelines between Germany and Russia,<sup>17</sup> the steady deterioration of Ankara's relationship with Washington,<sup>18</sup> and especially discord between the United States and European NATO members over policy toward Russia<sup>19</sup> and the US presence in Europe<sup>20</sup>—there are indications that the alliance's overall response to the COVID-19 crisis has been effective and efficient. Notwithstanding some initial failures to enforce travel restrictions and coordinate the supply of urgent equipment and concrete medical support to its members (such as Italy and Spain), member states have shown a high degree of cooperation in coping with the pandemic. NATO has leveraged its experience in crisis management and disaster relief and deployed its personnel, mechanisms, procedures, and multinational permanent structures both at military and political levels to respond to the crisis, including the transportation of medical staff and supplies to areas in need via missions flown by military forces from across the alliance.

### **2.1 Collective Security**

Since its establishment in April 1949,<sup>21</sup> NATO has stood for democratic values, principles, and institutions. Firmly adhering to its founding Washington Treaty,<sup>22</sup> and particularly Article 5, which states that an attack on one ally is an attack on all allies,<sup>23</sup>

the alliance has continuously adapted to shifting geopolitical realities and to the ever-evolving security landscape.<sup>24</sup> The fundamental commitment to serving as a transnational defense organization dedicated to promoting peace, security, and stability has helped maintain NATO's spirit of solidarity, unity of purpose, and cohesion among its members throughout the decades.<sup>25</sup> NATO's essential and enduring purpose is to safeguard the freedom and security of all its members,<sup>26</sup> and defend all Allies in land, air, and sea, as well as in cyberspace.<sup>27</sup> Thus, security serves as its founding value, key pillar, and guiding principle;<sup>28</sup> and collective defense (of which resilience is a core element<sup>29</sup>)—including cyber-defense,<sup>30</sup> crisis management, and cooperative security—is at the heart of the NATO alliance.<sup>31</sup>

Arguably, the pandemic has called into question the role and the position of NATO, as the world faces new and very different threats. This led NATO Secretary General Jens Stoltenberg to stress that, "Security challenges have not diminished because of COVID-19, and NATO must continue to ensure that the health crisis does not turn into a security crisis."<sup>32</sup> Indeed, the alliance has made good use of its overall resilience,<sup>33</sup> adjusting its comprehensive mechanisms and infrastructures to the new security environment by managing crisis situations, encouraging collective security, and sustaining civil-military readiness.<sup>34</sup>

### ***2.1.1 Operational Aspects***

Amid the controversies among member states and the various challenges facing the organization, NATO had already convened a panel of experts in early 2020 as part of efforts to strengthen the organization's political dimension and help it cope with complex challenges.<sup>35</sup> In direct response to the pandemic, NATO set up a COVID-19 Joint Task Force and devised a new operational plan, coupled with financial and medical mechanisms.<sup>36</sup> Together, these steps enabled the alliance to coordinate political-military efforts among its members and with its network of partnerships with non-member countries from the Euro-Atlantic area, the Mediterranean, the Gulf region, and other parts of the world,<sup>37</sup> to combat the pandemic, provide mutual support, and deliver logistics and critical medical aid across and beyond the territory of the alliance. Consequently, the deployment of extensive military capabilities and logistics along with massive financial support and medical equipment has delivered critical assistance throughout the member and partner nations (with a combined population of well over a billion), saved lives, and somewhat dampened the spread of the virus.<sup>38</sup> All this, alongside carrying out essential defense and security missions across the globe<sup>39</sup> (despite unpredictable changes and delays<sup>40</sup>), and undertaking significant efforts in support of scientific responses to COVID-19.<sup>41</sup>

In line with NATO's coordinated approach, comprehensive strategy, and operational framework, the North Atlantic Council (NAC), the alliance's top decision-making body has been working closely and exchanging information with other international

organizations including the European Union (EU), the United Nations (UN), and the WHO to support the civilian response in both member and partner states. Concerted and coordinated efforts by NATO's Euro-Atlantic Disaster Response Coordination Centre (EADRCC)<sup>42</sup> and its Support and Procurement Agency (NSPA), as well its Rapid Air Mobility initiatives<sup>43</sup> and various other institutions, delivered a decisive response in transporting forces and providing efficient logistical solutions. Thus, NATO has utilized its military capabilities and logistics, including strategic airlifts, to transfer critical medical supplies, personnel, and equipment as well as rapidly accessible infrastructure to augment national medical capabilities, including rapid and cost-effective deliveries of protective medical equipment (for example, Luxembourg received a consignment of field hospital tents in less than 24 hours).<sup>44</sup> It has also been engaged in innovative projects to help stem the spread of the disease,<sup>45</sup> and contributed to collaborative vaccination development and testing efforts.<sup>46</sup>

Since the beginning of the pandemic, military forces from across the alliance have flown more than 100 missions to transport medical personnel and around 1,500 tons of medical supplies and equipment from its stockpiles,<sup>47</sup> facilitated the construction of nearly 100 field hospitals, and added tens of thousands of treatment beds, while thousands of military medical personnel have been deployed in support of civilian efforts.<sup>48</sup> In addition, NATO and member-state installations are helping to provide critical medical equipment and technical assistance for displaced communities in Iraq, Kosovo, and Afghanistan.<sup>49</sup> The alliance and its member and partner states have also coordinated deliveries of aid to non-members such as Bosnia and Herzegovina, the Republic of Moldova, Georgia, Ukraine, and others; Serbia, for example, received assistance from Poland and Turkey.<sup>50</sup>

Aside from these coordinated international efforts to deliver logistics and infrastructures, NATO has also been addressing the spread of disinformation campaigns linked to the coronavirus crisis, focusing on countering this disinformation and mitigating its impact.

### ***2.1.2 The Struggle over Disinformation***

NATO has been dealing with disinformation since its inception.<sup>51</sup> However, the COVID-19 pandemic is the first major global health event in which digital platforms are playing a critical role in the dissemination of information about the spread and impact of the disease, and in altering and shaping people's perceptions and behavioral responses, on a global scale. In other words, the pandemic is being accompanied by a digital "infodemic"—an epidemic of information that threatens to overwhelm the public and state systems. While public health responses to the pandemic have necessarily been heavily reliant on large-scale public information campaigns, individuals and organizations have also been assailed by deliberate attempts to disseminate mis- and disinformation (that is, unreliable or false information)<sup>52</sup> to manipulate the public health

response and advance alternative agendas. These attempts have included denying or minimizing the seriousness of the threat; promoting conspiracy theories that erode public trust in state institutions and scientific response; undermining public faith in the safety of vaccines; and delivering an illusory sense of control through the provision of “miracle” remedies with the intent to deceive and/or mislead public opinion.<sup>53</sup>

Thus, the infodemic can have seriously harmful consequences, leading to poor observance of public health measures and reducing their effectiveness, and endangering countries’ ability to stop the pandemic, while also sowing discord and weakening resilience. A prominent example of this has been Putin’s long disinformation campaign against the United States which has spread confusion, hurt major institutions, and encouraged the propagation of deadly illnesses.<sup>54</sup>

In this context, NATO has itself been a key target for information attacks, primarily by Russia,<sup>55</sup> which seized the opportunity presented by the overall uncertainty surrounding the coronavirus to discredit NATO member states’ management of the pandemic and even accuse the alliance itself of spreading the virus. NATO’s assessment is that Russian disinformation campaigns were mostly aimed at deepening internal divisions and undermining unity, cohesion, and solidarity among its members.<sup>56</sup> Some of the false claims propagated by Russia include allegations that secret US or NATO laboratories in Ukraine, Georgia, Kazakhstan, and Moldova manufactured the coronavirus to be used as a biological weapon, or that NATO was planning to withdraw its battlegroup in Lithuania for safety reasons.<sup>57</sup>

Of course, countering disinformation and its disruptive impact is of paramount importance, especially during a global pandemic crisis. Thus, although NATO has not established a special agency or team to focus on countering disinformation, its Public Diplomacy Division (PDD) has been extensively monitoring, fact-checking, and reporting these false claims in cooperation with the EU, the WHO, and the UN. These activities have been bolstered by efforts to counter disinformation against NATO as a whole, led by the Cooperative Cyber Defense Center of Excellence (CCDCOE) and with the expertise of the NATO Strategic Communication Center of Excellence (StratCom COE).<sup>58</sup>

In response to Russia’s actions, the PDD has set up a webpage to tackle leitmotifs in Russian disinformation campaigns around NATO: “NATO-Russia: setting the records straight.”<sup>59</sup> Additional efforts include a special approach that the organization has developed, called “understand and engage,”<sup>60</sup> to identify, monitor, and counter disinformation. This involves a twin-track model that enables the organization to evaluate the effectiveness of its communications and tailor its strategic counter-disinformation campaigns. Through information-sharing and coordinated actions with its member and partner states as well as with other international organizations, NATO has strengthened its response to disinformation operations and ensured the continuity of its operations against hostile actors.

While these actions were mostly focused on defense, NATO also adopted a proactive position through its dedicated COVID-19 Task Force, and set up a new Cyber Operations Centre as part of a revamped NATO command structure,<sup>61</sup> which helped in its cyber-defense efforts.

### **2.1.3 Cyber-Defense**

The COVID-19 pandemic has huge implications for cybersecurity, and has created an enormous challenge for the international community: to continue operating despite massive shutdowns and restrictions on movements and transportation, while at the same time facing an increasing threat of cyber-attacks by authoritarian powers and hostile adversaries trying to take advantage of the crisis to promote their geopolitical and economic interests. The information technology on which NATO and its allies and partners has long depended—its data centers, cloud systems, and networks, and the digital devices their now-remote operators use to stay connected to each other and to the organization’s data—has become an even more vital resource. Overnight, the demands placed on the alliance’s digital infrastructure have skyrocketed, while the same infrastructure has swiftly become a much bigger and more attractive target for cyber-attacks.

Indeed, Russia<sup>62</sup> and other cyber-adversaries now challenge NATO and its members in cyberspace on a daily basis,<sup>63</sup> as part of ongoing hybrid campaigns and malicious cyber activities. These cyber-threats and attacks, directed at the overall capability of the alliance and seeking to undermine the security and stability of the transatlantic community, have become more frequent, complex, and aggressive.<sup>64</sup> They involve making intrusions into allies’ critical infrastructures including energy facilities (such as the announcement that Russia successfully hacked the United States power grid), manipulating elections in NATO countries through hacks and disinformation, and blocking GPS information critical to NATO activities, along with intellectual property theft related to technologies and industries, espionage through smartphone applications,<sup>65</sup> and as previously mentioned, disinformation against transatlantic countries including regarding the coronavirus itself.

Cybersecurity has moved to the top of NATO’s agenda in the recent years. To keep pace with a rapidly changing threat landscape and to maintain robust cyber-defenses, NATO adopted an updated Cyber Defense Action Plan as well as a roadmap toward implementing cyberspace as a separate domain of operations. To facilitate an alliance-wide shared approach to cyber-defense capability, NATO leaders agreed to establish the NATO Computer Incident Response Capability (NCIRC), which protects NATO’s own networks, and to set up a new Cyberspace Operations Centre as part of NATO’s strengthened Command Structure.



With the emergence of the COVID-19 crisis, NATO's first task was to upgrade the protection of its own networks, by giving the NCIRC additional capabilities for earlier detection and more rapid response to cyber-attacks. Two rapid response teams have also been created to assist member states, as well as to manage incidents affecting NATO itself. In addition, NATO's Cooperative Cyber Defense Centre of Excellence in Estonia has helped the organization arrange its largest-ever cyber-defense exercise,<sup>66</sup> along with four partner nations (Finland, Ireland, Sweden, and Switzerland) and participants from the European Union.<sup>67</sup> Modeled on current-day threats, this exercise enabled the alliance to examine the readiness of its processes and procedures in light of the COVID-19 pandemic, and to improve the skills of cyber-operators in defending NATO and national networks.

Recently, the North Atlantic Council issued a statement condemning the destabilizing and malicious cyber-activities being conducted in the context of the coronavirus pandemic. NATO Deputy Secretary General Mircea Geoană noted that actors have used the current COVID-19 crisis to exploit vulnerabilities in cyberspace, and that there has been an increase in malicious cyber-activities since the start of the crisis. Furthermore, he stated: "We agreed that a cyber-attack could trigger Article 5 of our founding treaty, where an attack against one Ally is treated as an attack against all."<sup>68</sup> This can be taken as an indication of NATO's determination to respond robustly to threats in the cyber-domain, attributing them the same seriousness as conventional threats.

### **3. Conclusion**

The novel COVID-19 pandemic crisis is a major "game-changer," as the most lethal and destabilizing world event since the Second World War, and one with the potential to upend the existing geopolitical map and give rise to new and unpredictable threats to the international community. It has triggered a considerable shift in the global security environment, extending and expanding conceptions of global security to view a public health event (the spread of the COVID-19 disease) as the world's most pressing security threat: This rampant virus is a clear and severe threat to the health, safety, and wellbeing of human beings, societies, and states worldwide. Its disruptive impact threatens to lead to global economic disaster and undermine international stability and security, with potentially far-reaching repercussions.

For over seven decades, the North Atlantic Alliance has been a major force in the global security arena, a multinational defense organization dedicated to promoting peace, security, and stability. It has deployed multinational military forces (such as the International Security Assistance Force) around the world as needed; provides military training to member states and other countries to enhance the cohesion, effectiveness, and readiness of its multinational forces; and on a daily basis, addresses terrorism, cyber-threats, disinformation, and other global threats. However,

the pandemic has presented NATO with unprecedented and unfamiliar challenges to which it has had to adjust and find responses.

NATO, and in particular its Allied Command Operations, has maintained a position of readiness throughout the crisis,<sup>69</sup> and its response has underscored the organization's relevance, resilience, and power. Shifting its focus from the traditional military side of the spectrum toward the management of the multidimensional COVID-19 crisis, much effort was put into improving the mobility of NATO forces, and their capability for rapid reaction and deployment by land and by air.

Indeed, NATO has clearly demonstrated its resilience by adjusting fairly quickly to the significant shifts in the global security landscape along with the enormous challenges and threats presented by the virus. It has modified policies and adapted plans and protocols to the evolving conditions in all domains, so as to protect its personnel and member states as well as its core combat capabilities, and ensure the continuity of its worldwide operations. Based on its extensive military experience and its robust logistical and operational programs and platforms, NATO has sustained its forces at a readiness level to enable it to effectively carry out its missions and continue with training and exercises (albeit to a more limited extent), while taking steps to avoid actively spreading the virus.

Additionally, it has leveraged its logistics and operational infrastructures to help protect its member states and to offer its partners critical medical and logistical support in the spirit of cooperation and solidarity. Collaboration and intelligence-sharing among member states, as well as with other international organizations such as the EU, the UN, and particularly the WHO, have enabled NATO to wage an intensive struggle against disinformation and infodemic, and to strengthen its cyber-defense capabilities.

The long-term political, economic, and social implications of the pandemic for security and defense will inevitably continue to challenge NATO's resilience and effectiveness, but the capability it has demonstrated to rapidly adapt to the unprecedented challenges posed on a global scale by COVID-19, without compromising its core values of cohesion, trust, and solidarity among its members, clearly indicates NATO's unique strength.

Thus, this essay argues that underlying all else, the future of NATO depends on how effectively it preserves and leverages its core values and principles in order to face further waves of COVID-19 or future pandemics,<sup>70</sup> while simultaneously tackling other significant profound challenges and threats.

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*The opinions expressed in this essay are those of the author and do not represent the official position of any government or institution.*

## Notes

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<sup>1</sup> M. Martini, V. Gazzaniga, N. L. Bragazzi, and I. Barberis, “The Spanish Influenza pandemic: a lesson from history 100 years after 1918,” *Journal of Preventive Medicine and Hygiene* 60, no. 1 (2019): E64–E67, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6477554/>.

<sup>2</sup> World Health Organization (WHO), *Summary of probable SARS cases with onset of illness from 1 November 2002 to 31 July 2003*, <https://www.who.int/publications/m/item/summary-of-probable-sars-cases-with-onset-of-illness-from-1-november-2002-to-31-july-2003>.

<sup>3</sup> M. H. Merson, “The HIV–AIDS pandemic at 25—The global response,” *New England Journal of Medicine* 354, no. 23, (2006): 2414–2417, <https://doi.org/10.1056/NEJMp068074>.

<sup>4</sup> Colin McInnes, “HIV/AIDS and Security,” *International Affairs* 82, no. 2 (March 2006): 315–326; Mark Schneider and Michael Moodie, *The Destabilizing Impacts of HIV/AIDS* (Washington: Center for Strategic and International Studies, 2002), <http://csis.org/publication/destabilizing-impacts-hivaids>.

<sup>5</sup> For the purpose of this article, health and pandemics are placed within the framework of human security, in which good health is considered as essential and instrumental to achieving human security. Drawing from the lessons of HIV/AIDS and SARS, in 2005 the World Health Organization (WHO) adopted a revised set of International Health Regulations according to which international organizations, along with states, play a fundamental role in managing global pandemics. See Anne-Marie Le Gloannec, Bastien Irondele, and David Cadier, “New and Evolving Trends in International Security,” *Transworld: Transatlantic Relationship and the Future Global Governance, Working Paper 13* (April 2013), [https://www.iai.it/sites/default/files/TW\\_WP\\_13.pdf](https://www.iai.it/sites/default/files/TW_WP_13.pdf).

<sup>6</sup> World Health Organization (WHO), “WHO announces COVID-19 outbreak a pandemic,” March 3, 2020, <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/who-announces-covid-19-outbreak-a-pandemic>.

<sup>7</sup> World Health Organization (WHO), “Coronavirus disease 2019 (COVID-19): Situation report 51,” March 11, 2020, <https://apps.who.int/iris/bitstream/handle/10665/331475/nCoVsitrep11Mar2020-eng.pdf?sequence=1&isAllowed=y>.

<sup>8</sup> World Health Organization (WHO), “WHO Coronavirus Disease (COVID-19) Dashboard,” January 4, 2021, <https://covid19.who.int/>.

<sup>9</sup> G. Shih, David J. Lynch, Simon Denyer, and Shammias Brittany, “Chinese coronavirus infections, death toll soar as fifth case is confirmed in U.S.,” *Washington Post*, January 27, 2020, [https://www.washingtonpost.com/world/asia\\_pacific/coronavirus-china-latest-updates/2020/01/26/4603266c-3fa8-11ea-afe2-090eb37b60b1\\_story.html](https://www.washingtonpost.com/world/asia_pacific/coronavirus-china-latest-updates/2020/01/26/4603266c-3fa8-11ea-afe2-090eb37b60b1_story.html).

<sup>10</sup> L. Alexandra Phelan, Rebecca Katz, and Lawrence O. Gostin, “The Novel Coronavirus Originating in Wuhan, China: Challenges for Global Health Governance,” *Journal of the American Medical Association*, January 30, 2020, <https://jamanetwork.com/journals/jama/fullarticle/2760500>.

<sup>11</sup> Wang Mingjie, Han Baoyi, May Zhou, and Edith Mutethya, “Experts say Xi’s speech sets key goals for 2021,” *China Daily*, January 2, 2021, <https://www.chinadaily.com.cn/a/202101/02/WS5fefa908a31024ad0ba9ffe8.html>.

<sup>12</sup> Maryla Maliszewska, Mattoo Aaditya, and Dominique van der Mensbrugge, (2020), “The Potential Impact of COVID-19 on GDP and Trade: A Preliminary Assessment,” *World Bank Group, Policy Research Working Paper 9211*, <https://openknowledge.worldbank.org/bitstream/handle/10986/33605/The-Potential-Impact-of-COVID-19-on-GDP-and-Trade-A-Preliminary-Assessment.pdf?sequence=1&isAllowed=y>.

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<sup>13</sup> For the purpose of this article, resilience refers to a process of bouncing back from difficult experiences and adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress (<https://www.apa.org/topics/resilience>). Effective resilience means the capacity to prepare for and withstand shocks of the magnitude of a major pandemic or equivalent, such as a major cyber-attack, with any resulting disruption significantly less than that caused by COVID-19., Franklin D. Kramer, “Effective resilience and national strategy: Lessons from the pandemic and requirements for key critical infrastructures,” *Atlantic Council*, October 20, 2020, <https://www.atlanticcouncil.org/wp-content/uploads/2020/10/Effective-Resilience-Latest.pdf>.

<sup>14</sup> Shaul Kimhi, Marciano Hadas, Yohanan Eshel, and Bruria Adini, (2020), “Recovery from the COVID-19 pandemic: Distress and resilience,” *International Journal of Disaster Risk Reduction* 50 (2020), <https://www.sciencedirect.com/science/article/pii/S2212420920313455#bib1>.

<sup>15</sup> *The Economist*, “NATO members’ promise of spending 2% of their GDP on defence is proving hard to keep,” Special Report, March 14, 2019, <https://www.economist.com/special-report/2019/03/14/nato-members-promise-of-spending-2-of-their-gdp-on-defence-is-proving-hard-to-keep>.

<sup>16</sup> Asli Aydintasbas and Sinan Ülgen, “A conflict could be brewing in the eastern Mediterranean. Here’s how to stop it,” *Washington Post*, September 17, 2020, <https://www.washingtonpost.com/opinions/2020/09/17/conflict-could-be-brewing-eastern-mediterranean-heres-how-stop-it/>.

<sup>17</sup> Brian O’Toole and Daniel Fried, “US opens door to Nord Stream II sanctions and transatlantic tensions,” *Atlantic Council*, July 15, 2020, <https://www.atlanticcouncil.org/blogs/new-atlanticist/us-opens-door-to-nord-stream-ii-sanctions-and-transatlantic-tensions/>.

<sup>18</sup> *Geopolitical Intelligence Service (GIS)*, “Opinion: Scenarios for Turkey’s role in NATO,” Report Analysis, October 4, 2019, <https://www.gisreportsonline.com/opinion-scenarios-for-turkeys-role-in-nato,defense,2988.html>.

<sup>19</sup> Madeline Roache, “Breaking Down the Complicated Relationship Between Russia and NATO,” *Time*, April 4, 2019, <https://time.com/5564207/russia-nato-relationship/>.

<sup>20</sup> Bradley Brown and Ben Hodges, “Worth Preserving: US Military Posture in Germany: Any adjustment to U.S. force posture in Europe should focus first and foremost on sustaining or strengthening readiness,” *Defense One*, October 5, 2020, <https://www.defenseone.com/ideas/2020/10/worth-preserving-us-military-posture-germany/168974/>.

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<sup>22</sup> NATO, “The North Atlantic Treaty: Washington D.C. 4 April 1949,” April 10, 2019, [https://www.nato.int/cps/en/natolive/official\\_texts\\_17120.htm](https://www.nato.int/cps/en/natolive/official_texts_17120.htm).

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