

The CSIS logo is located in the top left corner. It consists of the letters "CSIS" in a bold, sans-serif font. To the right of the letters is a vertical line, followed by the text "CENTER FOR STRATEGIC & INTERNATIONAL STUDIES" in a smaller, all-caps, sans-serif font. Further to the right is another vertical line, followed by the text "BURKE CHAIR IN STRATEGY" in the same smaller, all-caps, sans-serif font. The background of the entire page is a photograph of soldiers in silhouette on a grassy hill, looking up at several parachutes descending from the sky against a cloudy, twilight sky.

CENTER FOR STRATEGIC &  
INTERNATIONAL STUDIES

BURKE CHAIR  
IN STRATEGY

# Strengthening European Deterrence and Defense: NATO, Not European Defense Autonomy, Is the Answer

By Anthony H. Cordesman

With the assistance of Grace Hwang

Working Draft: September 20, 2021

Please provide comments to [acordesman@gmail.com](mailto:acordesman@gmail.com)

## **Strengthening European Deterrence and Defense: NATO, Not European Defense Autonomy, Is the Answer**

**Anthony H. Cordesman with the assistance of Grace Hwang**

The time has come for the U.S. and its NATO allies to take a truly serious look at how they are shaping the future defense of Europe, the Atlantic, and the Mediterranean. In doing so, they must focus on improving deterrence and defense, not funding levels. They must assess the role each country should play in creating a more effective alliance instead of debating in generalities, and they should create meaningful force plans instead of issuing more strategic rhetoric.

The U.S. needs to change its approach to NATO and Europe. The U.S. focus on the Chinese threat, the way the U.S. withdrew from Afghanistan, the lack of full U.S. consultation with its NATO partners, the collapse of the Afghan government and its forces, and the casual way in which the U.S. engaged Australia and the U.K. in a closer alliance by substituting U.S. nuclear submarines for French conventional submarines have all raised a whole new series of European doubts about relying on the U.S. as a strategic partner.

At the same time, Europe needs to both be far more realistic about its strategic dependence on U.S. forces and do far more to improve its own military capabilities. It needs to focus on nation-by-nation force improvements rather than burden sharing and arbitrary spending levels, and it must recognize there is no credible European alternative to NATO and an Atlantic alliance.

Both the U.S. and Europe need to properly assess their defense spending levels in terms of actual military requirements and in comparison to the size of Russia spending and forces, and it must put an end to their present emphasis on burden sharing by arbitrary percentage of GDP and equipment spending. The European nations need to focus on net assessments of their present and future capabilities to deter and defend against Russia, on what member countries can actually do to improve their forces, and on modernization at a time when there is an ongoing revolution in military affairs that will last for at least the next few decades. They also need to plan collectively to deal with the ongoing emergence of China as a far larger and more effective military superpower than Russia and subsequently create a stable balance of deterrence in dealing with both Russia and China.

This analysis addresses all of these issues in a summary form, quantifying the key trends involved to the degree that is possible with unclassified data. It makes it clear that the U.S. must remain the center of the Atlantic alliance and that any rebalancing of its forces to Asia must take this into account. This analysis makes it clear that most European powers have left important gaps in their military efforts and that they have not created effective plans to modernize and strengthen their contributions to the NATO alliance.

It also makes it clear that there is no European alternative to safely deterring Russia and meeting its military threats that can significantly reduce European dependence on the U.S. – and there are no meaningful ways the European Union can substitute for NATO.

### **The U.S. Needs to Refocus on Force Planning, Not Burden Sharing and Make Its Continuing Commitment to NATO Clear**

The analysis also shows, however, that both Europeans and Americans have reason to be concerned. The U.S. defeat in Afghanistan in July and August as well as the growing U.S.

emphasis on the rising threat from China have raised legitimate European concerns over the reliance on the United States. President Macron is scarcely the only senior voice calling for a much stronger and EU-based approach to European defense, and Europe has valid reasons to be concerned.

For more than a decade there have been a series of reports that the U.S. is rebalancing its forces to Asia in ways that reduce its presence outside Asia and that retreat from its strategic commitments to Europe and the Middle East, although such reports have not described real-world trends in U.S. deployments and capabilities that alter the U.S. commitment to NATO.

More substantively, President Trump's emphasis on "burden sharing" and on raising European military spending came close to strategic bullying. So did his threat to cut U.S. forces in Germany, failures to confront Russia, and focus on China. Although the U.S. actually increased some aspects of its commitments to NATO during his administration, his words and actions did undermine European confidence in the United States.

### **Europe Also Needs to Refocus on Force Planning and Improve National Contributions to NATO in Key Areas, Not Seek European Options**

At the same time, the U.S. has equally serious concerns about European defense efforts. Many aspects of the pressure that the Trump administration put on NATO European states to increase their defense efforts were legitimate. As the country-by-country analysis later in this report shows, many European states have fallen short in maintaining and modernizing their military forces in spite of Russia hardening its position and the signals sent by the Russian seizure of the Crimea and the invasion of the Ukraine.

A majority of the current European members of NATO have also been slow – and often faltering – in adapting to the changes in NATO since the fall of the former Soviet Union (FSU) and in reacting to the rise of a more aggressive and threatening Russia – and this is true of many European states that did increase their defense spending and that met NATO's burden sharing quotas.

For all of the recent emphasis on burden sharing and claims about rises in defense spending as a percent of GDP, this analysis shows that the overall level of European cooperation in creating effective deterrent and defense capabilities may actually have declined relative to Russia since 2014. The following review of region-by-region, country-by country, European forces, and their capabilities to deter and defend shows all too clearly positive rhetoric that has praised higher spending percentages. While some efforts have improved defense cooperation, they do not reflect meaningful improvements in the military realities in many – if not most – European states.

### **The European Option Fallacy**

So far, the leading voice for some form of European defense autonomy – linked to the European Union (EU) – is from President Emmanuel Macron of France. He stated in a news conference with then German Chancellor Merkel in June 2021 that "We have succeeded in instilling the idea that European defense, and strategic defense autonomy, can be an alternative project to the trans-Atlantic organization, but very much a solid component of this."<sup>1</sup>

President Macron has since raised the same theme on several occasions and repeatedly called for "strategic autonomy." U.S. and French military relations also deteriorated sharply in September 2021 because of Australia's decision to buy eight nuclear submarines from the U.S. instead of 12 French conventional ones without consulting France – a decision that highlighted the problems in

U.S. efforts to “rebalance to Asia” that do not inform and consult with America’s European allies and that reject France (and Macron’s) effort to create a “third way” to deal with an emerging Chinese superpower.

At the same time, the new strategic partnership between the U.S., Australia, and the U.K. plays a critical role in strengthening the West’s ability to compete with China, and Australian nuclear submarines will give the alliance a far better and more lasting capability to deter China in the Pacific waters near China compared to France’s troubled conventional submarine program. Moreover, President Macron’s efforts to actively promote a “third way” in the Pacific that emphasizes trade and cooperation with China seems to be decoupled from the realities of dealing with an emerging authoritarian Chinese superpower that later sections of this report show is becoming an all too real and growing threat.

It is also important to note that other European leaders have been far less critical. Chancellor Merkel placed her emphasis on NATO at that same press conference, stating that she was glad that President Biden had shifted away from President Trump’s focus on burden sharing and on reducing the U.S. commitment to Europe and that instead President Biden was rebuilding a “climate of cooperation.” She stated that,<sup>2</sup>

It is very clear from the G7 and NATO talks that the United States sees itself as both a Pacific and an Atlantic nation and, given the strength of China, is naturally challenged to be much stronger in the Pacific than perhaps it was 20 years ago... And that means for us Europeans that we have to take on certain tasks and responsibilities for ourselves... but I see the absolute necessity—and I think this is also expected of the United States of America—that we act coherently.

### **NATO Needs To Be Fixed, Not Broken**

This analysis shows that NATO needs to be fixed rather than broken, and there are no real European alternatives to Atlantic deterrence and defense. It shows that the U.S. and each of its NATO European allies need to focus on making the alliance more effective. They need to cooperate far more in shaping NATO’s real-world strategy and creating actual levels of meaningful modernization and cooperation. Moreover, they need to focus on nation-by-nation improvements in the common capability to deter, defend, and cooperate, rather than on burden sharing, setting arbitrary spending goals, and substituting good intentions for action.

It also shows that NATO needs new realities, not more rhetoric. It shows that every nation in the alliance needs to do more to actually implement the strategic and force modernization goals set out in NATO’s 2030 plan. It shows that the creation of a well-balanced, integrated, and interoperable mix of national forces should be a common U.S., European, and Canadian objective. It highlights that the resulting efforts needs to address the military strengths and weaknesses of each member state in different ways; that the alliance needs a new approach to force planning based on real net assessment, plans, and budgets; and that NATO does now need to actively review the changing capabilities of the world’s three superpowers and to consult on the rising threat from China, rather than just Russia, as well as from terrorism and the out-of-area threats closer to Europe.

## Table of Contents

THE U.S. NEEDS TO REFOCUS ON FORCE PLANNING, NOT BURDEN SHARING AND MAKE ITS CONTINUING COMMITMENT TO NATO CLEAR .....	2
EUROPE ALSO NEEDS TO REFOCUS ON FORCE PLANNING AND IMPROVE NATIONAL CONTRIBUTIONS TO NATO IN KEY AREAS, NOT SEEK EUROPEAN OPTIONS.....	3
THE EUROPEAN OPTION FALLACY .....	3
NATO NEEDS TO BE FIXED, NOT BROKEN.....	4
<b>A EUROPEAN OPTION IS NOT A REAL-WORLD CHOICE .....</b>	<b>6</b>
WHAT AN EU-BASED APPROACH TO EUROPEAN DEFENSE COOPERATION REALLY MEANS.....	6
<i>Figure One: Members of NATO, the European Union, and European Economic Area.....</i>	<i>7</i>
FOCUSING ON BURDEN SHARING BULLYING IS NOT THE ANSWER.....	8
PUTTING NATO SPENDING IN CONTEXT: NATO EUROPE ALONE OUTSPENDS RUSSIA, BUT IT IS NOT ENOUGH .....	9
<i>Figure Two: The Rise in NATO Country Defense Spending Efforts 2014 versus 2021 .....</i>	<i>10</i>
<b>STRENGTHENING NATO VERSUS DIVIDING EUROPE AND THE UNITED STATES .....</b>	<b>12</b>
<b>HAVE THE U.S. CLEARLY AND DECISIVELY MAKE ITS CONTINUED COMMITMENT TO NATO, EUROPE, AND EXTENDED DETERRENCE CLEAR.....</b>	<b>12</b>
U.S. FORCE CUTS IN EUROPE AFTER THE BREAK-UP OF THE FORMER SOVIET UNION.....	13
EXAMINING RECENT U.S. FORCE TRENDS IN EUROPE IN DETAIL.....	13
<b>EXPAND UPON THE <i>NATO 2030 STRATEGY</i> AND WORK IN THE NATO 2021 SUMMIT IN BRUSSELS TO DEVELOP CLEAR NATIONAL FORCES PLANS TO ADDRESS THE MAJOR WEAKNESSES IN NATIONAL MILITARY FORCES AND NATIONAL CONTRIBUTIONS TO NATO .....</b>	<b>16</b>
DEALING WITH THE ROLE AND CAPABILITY OF POST FSU EUROPEAN NATIONAL MILITARY FORCES.....	16
<i>Figure Five: NATO Country Comparison Before and After Collapse of the Soviet Union .....</i>	<i>18</i>
LOOKING AT EUROPEAN TRENDS BY SUB-REGION AND COUNTRY .....	19
<b>PROVIDE A CLASSIFIED AND UNCLASSIFIED ANNUAL NET ASSESSMENT OF THE SECURITY BALANCE AND THE LEVELS OF DETERRENCE AND DEFENSE CAPABILITIES THAT NATO PROVIDES .....</b>	<b>27</b>
<b>FOCUS ON THE BROADER TRANSATLANTIC NEED TO COMPETE WITH CHINA AND DEVELOP A COLLECTIVE APPROACH TO PERSUADE IT TO COOPERATE AND LIMIT THE RISK OF SOME FUTURE CONFLICT. ....</b>	<b>27</b>
THE CHANGING ROLE OF THE SUPERPOWERS: 1991 TO 2021.....	28
<i>Figure Six: Balance of U.S., Russian, and China Military Forces in 1991 (After Break Up of Soviet Union) and in 2021 .....</i>	<i>29</i>
UNDERSTANDING THE QUALITATIVE SCALE OF CHANGE IN CHINA.....	30
<i>Figure Seven – Part One: China’s Growing Global Impact .....</i>	<i>32</i>
<i>Figure Seven – Part Two: Different Estimates of Chinese versus U.S. GDP and GNI .....</i>	<i>33</i>
<i>Figure Seven – Part Three: China as the Arsenal of Autocracy.....</i>	<i>34</i>
<i>Figure Seven – Part Four: Comparative U.S., Other NATO, Chinese, and Russian Defense Spending: 1990-2020 .....</i>	<i>35</i>
<i>Figure Seven – Part Five: Japanese MoD Estimate of Rise in Chinese Defense Spending .....</i>	<i>36</i>
<i>Figure Seven – Part Six: Inventories of Nuclear Warheads in Chinese, Russian, U.S., European, and Other Nuclear Forces in 2021 .....</i>	<i>37</i>
<i>Figure Seven – Part Seven: Japanese MoD Estimate of Rates of Key Aspects of Chinese Military Modernization .....</i>	<i>38</i>
<i>Figure Seven – Part Eight: The Expanding Chinese Naval Threat.....</i>	<i>39</i>
NATO AND COOPERATION IN DEALING WITH BOTH CHINA AND RUSSIA.....	40
<b>APPENDIX ONE: NATO ESTIMATE OF 2021 DEFENSE SPENDING BY COUNTRY .....</b>	<b>41</b>



## A European Option Is Not a Real-World Choice

There are two main reasons why a European option cannot replace the present Atlantic alliance. The first lies in the limits of the European Union (EU) and its membership. The second is the matter of defense resources. The EU may be able to add more rhetoric to European defense cooperation, but it seems highly unlikely that it can add more substance. And, when it comes to resources, the U.S. has both a wide range of military assets that Europe cannot credibly duplicate as well as a massive superiority in the capability to fund both power projection and forward deployed capabilities.

### What an EU-Based Approach to European Defense Cooperation Really Means

Any approach to security based on the EU states alone would present major issues raised by the different membership structures listed in **Figure One**. It would raise key questions regarding the role of Britain as a result of “Brexit,” and it would exclude the U.S. and Canada. It would also potentially exclude the European and Atlantic members as well as candidate members of NATO that are not members of the EU: Albania, Iceland, Turkey, Bosnia and Herzegovina, Georgia, and the Ukraine.

At best, an EU-centric approach to security would create something of a bureaucratic nightmare in coordinating NATO and EU force planning, modernization efforts, interoperability programs, sustainability and force deployment efforts, and a host of other practical aspects of defense planning, programming, and budgeting. And here, “at best,” it is more likely to really be “mediocre” or “bad.”

The EU may be a good institution for civil “institution building,” but it has no collective capability to address strategy, force planning, and the creation of effective military capabilities in ways that compete with Russia. The EU has no real history of military planning or command. It – at most – has been a discussion group, and Western security needs a functional military alliance, not more words and meetings.

The rhetoric of cooperation is all too easy. Real success, however, lies in actual funding of the right programs, the proper coordination and implementation of such efforts, and the creation of effective real-world capabilities to deter and fight. NATO already faces a 30-member country challenge in going from rhetoric to reality. Operating in parallel with the EU is likely to double that challenge and leave all too many existing major gaps in creating coordinated European efforts.

While it would be desirable to include all of the EU states in such an effort from a purely military viewpoint, this also could create major new problems in dealing with Russia since it would again expand the West’s security zone at the expense of Russia.

As **Figure One** shows, an EU-based approach to European defense cooperation would add three key European states to such common efforts: Sweden, Finland, and Austria – as well as Malta and Cyprus.

The net effect of an EU-based approach could also decouple European defense from NATO’s major sea powers and two key nuclear powers: the U.S. and Britain. These are also key powers that take the lead in acquiring long range precision strike capabilities, missile defense, multilayered land and sea-based air and rocket defense, advanced anti-submarine warfare, advances in artificial

intelligence and all-domain warfare, and advances in some aspects of counterterrorism – all which play a key role in power projection and forward defense.

To the extent to which the EU becomes independent in any practical way would do more than exclude the U.S. from such an effort in terms of planning the land and air defense of mainland Europe. It would effectively exclude any major capability to operate in the Atlantic, and at least partly decouple European Mediterranean powers from the U.S., Britain, and Turkey.

***Figure One: Members of NATO, the European Union, and  
European Economic Area***

**NATO (30 Members):** Albania, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Turkey, United Kingdom, United States. (Three other states are seeking to join NATO: Bosnia and Herzegovina, Georgia, and Ukraine.)

**European Union (27 Members):** Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

**European Economic Union:** Includes all EU countries and also Iceland, Liechtenstein and Norway. It allows them to be part of the EU's single market. Switzerland is not an EU or EEA member but is part of the single market. Swiss nationals have the same rights to live and work in the UK as other EEA nationals.

## **The Real-World Character of an EU-Based Security Structure**

The moment one examines the total military resources and military spending that shape European and Atlantic security, it becomes even more clear that there is no real European option for defense autonomy. Any effort to create a European military structure that excludes the U.S. and Britain also excludes a massive amount of the funds currently available for Western security. It also has to exclude the vast majority of the West's key power projection forces and capabilities, forward deployable warfighting capabilities, naval warfare capabilities, space capabilities, command and control capabilities, levels of military technology, and advances in tactics and joint all-domain warfighting capability.

The United States may be focusing more of its defense resources and forces on Asia, but it is important to understand the relative size of the resources involved. The latest NATO report on military spending puts U.S. spending in 2021 at \$811.1 billion, which is 69% of total NATO member country defense spending of \$1,174.2 billion as measured by NATO standards.<sup>3</sup>

Only a limited portion of this spending goes directly to U.S. forces dedicated solely to NATO. The U.S. no longer reports a figure for what it actually spends on NATO, but it is still almost certainly close to something approaching 40% of U.S. spending if the figure includes naval, extended deterrence, and power projection capabilities rather than simply forward deployed land and air forces. Here, it is also important to note that a U.S. focus on China would not commit U.S. power projection forces based in continental U.S. (CONUS) unless there was a general war involving both China and Russia at the same time, and such a war would still not commit all U.S. power projection forces to Asia under any conditions.

The portion of total NATO military spending that is spent outside the EU also would be \$112.4 billion higher if Canada (\$26.5 billion), the U.K. (\$72.8 billion), and Turkey (\$13.1 billion) were added to the U.S. total. Reducing the European effort to the EU alone would reduce the total of \$363.1 billion that NATO reports for all European and Canadian spending to only \$250.7 billion, and this would reduce total European spending from \$336.6 billion to \$224.2 billion – only 19% of the NATO total of \$1,174.2 billion.<sup>4</sup>

Arguably, an EU approach to European defense might pick up some gains in funding by including spending by Austria (\$3.08 billion on defense in FY2021), Finland (\$5.23 billion), and Sweden (\$71.2 billion), but the gains would be marginal relative to decoupling from U.S. spending. Both Sweden and Finland are also now heavily dependent on cooperation with the U.S., and formal ties to the EU present the problem that these “non-aligned” countries would have to overtly participate in a working alliance. This would require some agreement as to what obligations its members have to a common defense, and they would then cease to be neutral. Non-aligned neutrals that join an alliance are an oxymoron.

### **Focusing on Burden Sharing Bullying Is Not the Answer**

At the same time, it is equally clear that the Trump Administration’s focus on burden sharing and increasing defense spending by the European states is not the way to proceed. The NATO data in **Figure Two** compare levels of effort in 2014 to levels in 2021, and they do show that pressing countries to spend more has produced some additional financial resources, although the impact has been limited except in percentage terms for Romania, the Slovak Republic, Hungary, the Czech Republic, the Baltic states, and the smaller and more marginal military powers.

The country-by-country analysis of force levels that follows, however, shows that real-world net effect of the U.S. emphasis on burden sharing has been negative. Far too much of the money was spent in the wrong areas, and the way the U.S. pushed its allies to spend more did considerable political damage.

The Trump administration not only turned burden sharing into something approaching strategic bullying, it threatened to cut U.S. forces with no regard to the impact on European security. U.S. pressure did not affect the underspending by powers like Belgium, Germany, Spain, Canada, Italy, or the Netherlands – and any quick review of the force strengths and equipment holding of most powers that spend more show that they still made force cuts and fell significantly behind in force modernization.

In the case of U.S. threats to cut American forces in Germany, the United States acted like a spoiled child who threatens to take his ball and go home if the other children will not play the game his way. This is scarcely a case for creating a separate European approach to defense. It is rather roughly the equivalent of the other children trying to go on playing the game without the ball.

In retrospect, it also is amazing that the U.S. could waste so much high-level political effort on trying to push European countries to spend 2% of their GDP on defense without focusing on their current force postures and what they were actually buying. The same is true in calling for 20% of defense spending to go to equipment and procurement without analyzing the extent to which such purchases actually improved the ability of NATO to meet key threats and deter key conflicts.

It is a given nation’s military forces and actual capability to defend and deter, not its total spending, that counts. These are not determined by achieving percentages of GDP, they are determined by the quality and quantity of the military forces that NATO countries actually have; their strengths



and weaknesses; and their ability to be effective by cooperating, by setting the right common priorities for improvement and change, and by focusing on a common strategy and key issues like interoperability.

### **Putting NATO Spending in Context: NATO Europe Alone Outspends Russia, But It Is Not Enough**

These issues become clearer when the data in **Figure Three** put total NATO and Russian military spending in a net assessment context. This **Figure** compares NATO's reported spending levels in **Figure Two** with estimates of Russian military spending by two leading think tanks – the International Institute for Strategic Studies (IISS) and the Stockholm International Peace Research Institute (SIPRI).

While the estimates for Russia in **Figure Three** are unclassified, experts indicate on a background basis that they come close to the official intelligence estimates of the United States and United Kingdom. And, if the data in **Figure Three** are even approximately correct, they show that NATO Europe has been vastly outspending Russia since 1990 and has spent four to five times what Russia is spending. If one then adds in spending by U.S. and Canada, NATO would have spent over 15 times what Russia spent.

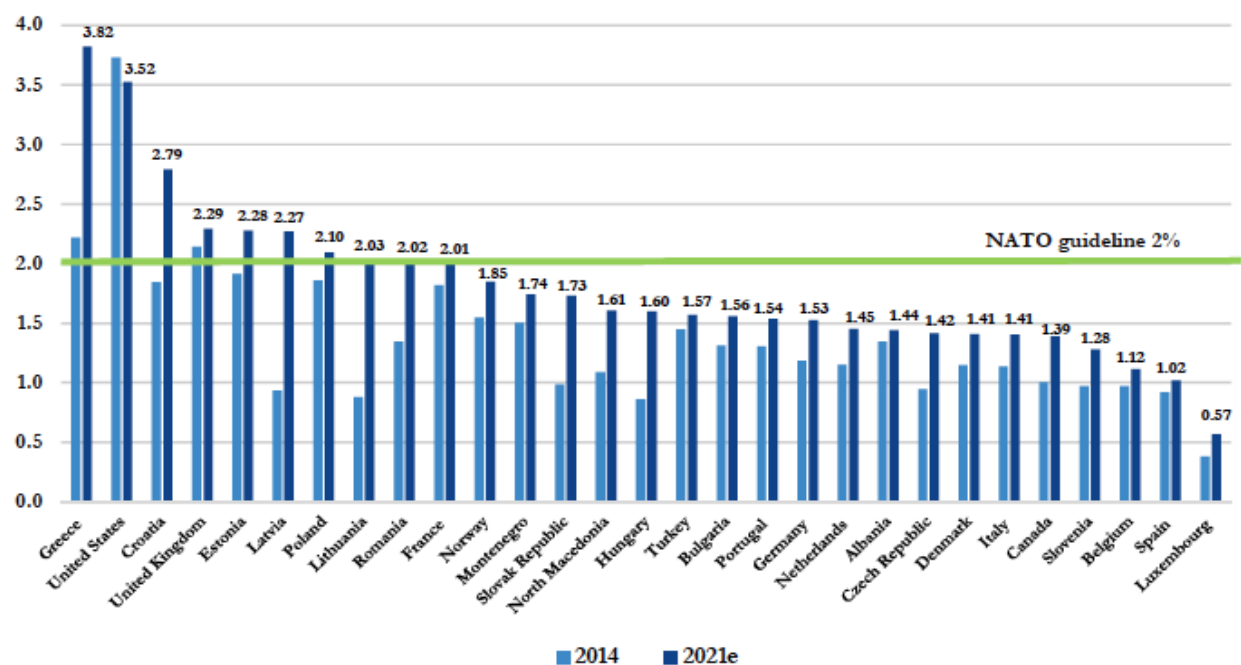
This makes it striking that no one who gave priority to increasing spending over increasing actual military capability during the peak of the Trump emphasis on burden sharing seems to have done any formal net assessments of how NATO spending – and European spending in particular – compared to the military spending of Russia and Belarus –Russia's only close military ally.

It should be noted that there does need to be a serious effort to validate these estimates of Russian military spending and to ensure that they are truly comparable to those for NATO. There are experts outside government who feel that different criteria should be used for comparing Russian and NATO spending and put Russian spending at \$150 billion to \$200 billion a year.

Even so, such estimates still mean that Europe alone grossly outspends Russia, and that total NATO spending – including the U.S. – would be five times higher than even the high estimate for Russia.<sup>5</sup> It still seems clear that the problem for most countries is not total spending, it is rather how their money is spent.

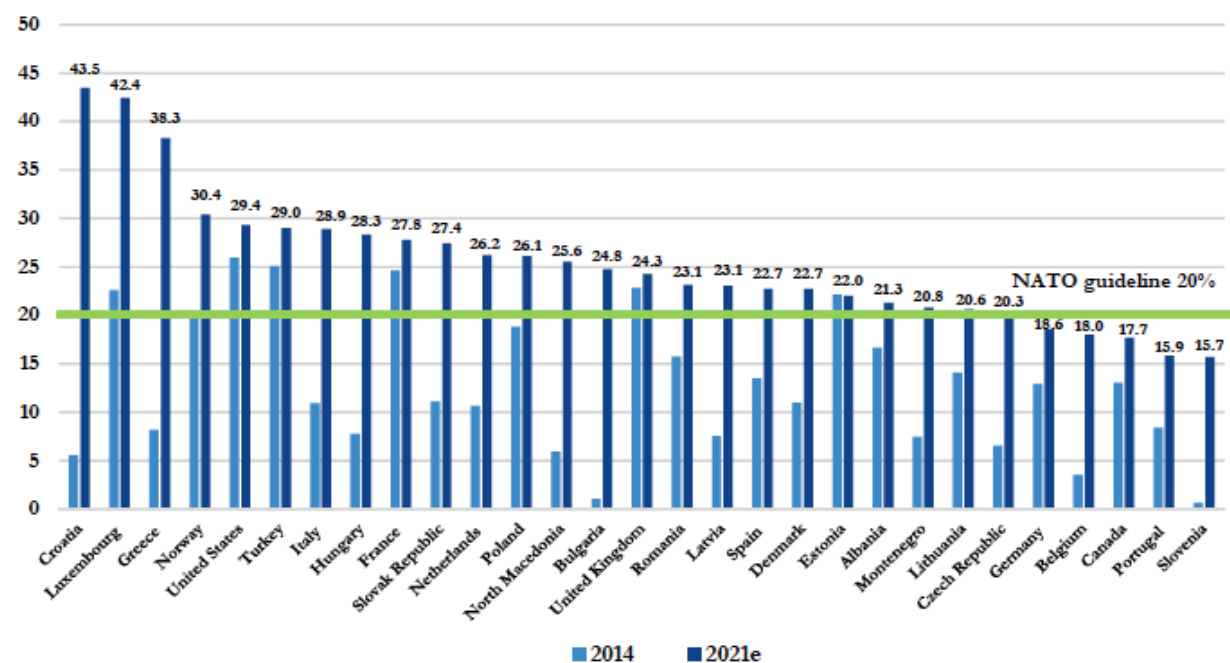
**Figure Two: The Rise in NATO Country Defense Spending Efforts  
2014 versus 2021**

Defense expenditure as a share of GDP (%) (based on 2015 prices and exchange rates)



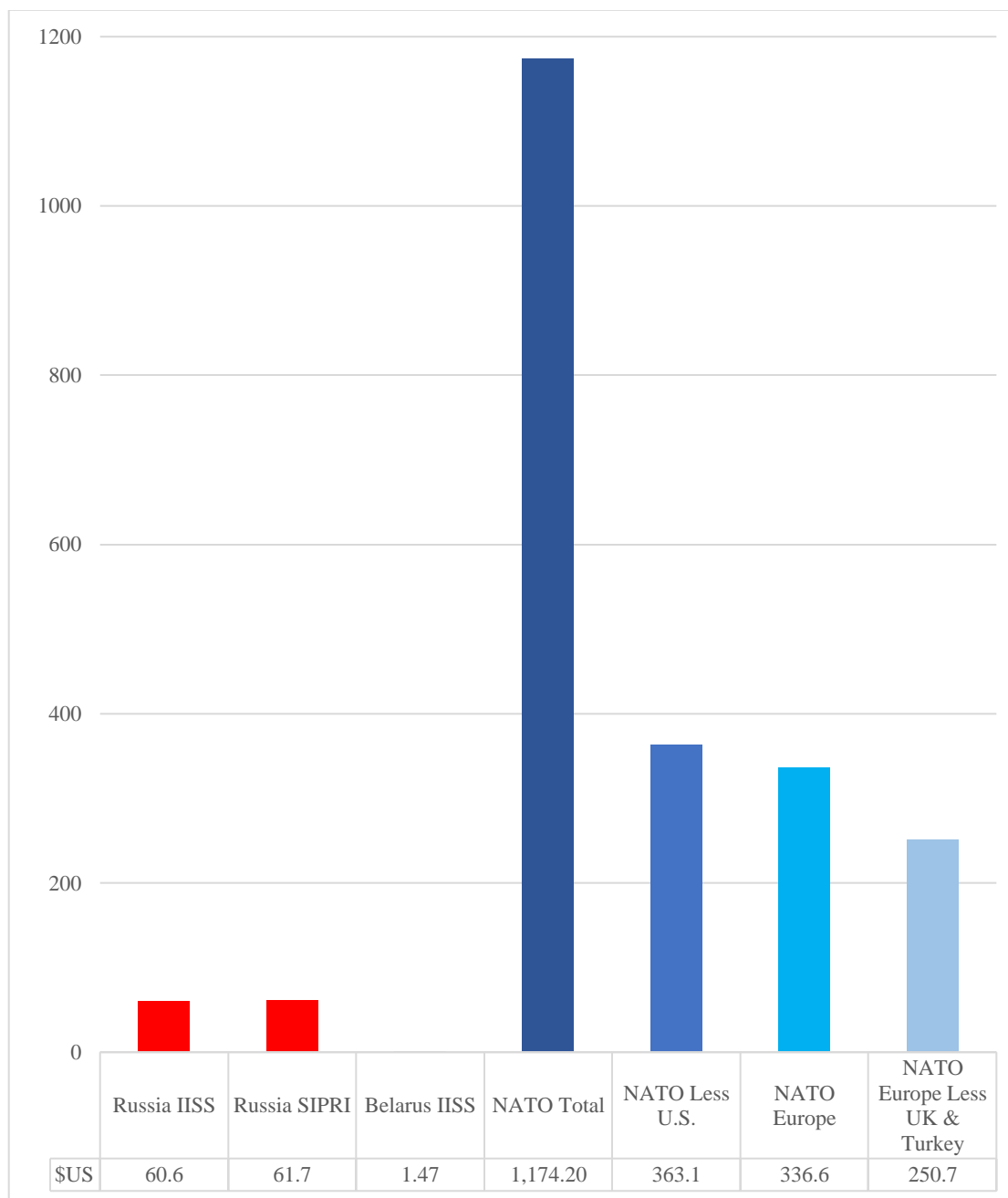
Note: Figures for 2021 are estimates.

Equipment expenditure as a share of defense expenditure (%) (based on 2015 prices and exchange rates)



Source: NATO, Defence Expenditure of NATO Countries (2014-2021), COMMUNIQUE PR/CP(2021)094, June 11, 2021.

**Figure Three: Russian Military Spending versus NATO Spending in 2020/2021  
in \$US Current Billions**



**Note:** “NATO Less United States” represents NATO Europe and Canada.

“NATO Europe Less UK & Turkey” represents NATO Europe without the UK and Turkey.

**Source:** IISS, *Military Balance 2021*; SIPRI, *World military spending rises to almost \$2 trillion in 2020*, <https://sipri.org/media/press-release/2021/world-military-spending-rises-almost-2-trillion-2020>; and NATO, *Defence Expenditure of NATO Countries (2014-2021)*, Communiqué, June 2021, [https://www.nato.int/cps/en/natohq/news\\_184844.htm](https://www.nato.int/cps/en/natohq/news_184844.htm).

## **Strengthening NATO Versus Dividing Europe and the United States**

It is also important to give NATO credit where credit is due. For all the European concerns over the U.S. commitment to European defense, the fact remains that NATO has done a good job of holding the alliance together at the political and military levels. Secretary General Jens Stoltenberg, the NATO international staff, the NATO Military Committee, the NATO military command, and NATO's international staff all deserve credit for keeping the alliance alive during four years of a Trump era with an emphasis on European burden sharing as well as for making real progress in improving Atlantic deterrence and defense capabilities.

The fact remains, however, that European confidence in the U.S. has weakened, NATO faces a growing Russian challenge, and NATO suffers deeply from the internal divisions and differences between European member states and their military forces. NATO does need to revitalize its force planning, set much clearer command force goals, transform its new strategy from words into actions, and create a more effective structure for both deterrence and defense.

There are good reasons to discuss and debate the relative levels of effort devoted to the key regions in NATO, to defending the Atlantic and the Mediterranean, to meeting terrorist and extremist threats, and to developing better capabilities for both humanitarian and military out-of-area operations. In each case, hard trade-offs do have to be made between strategic priorities, the allocation of resources, and other domestic political and economic priorities.

There also are good reasons to discuss and debate the new U.S. emphasis on deterring and defending against China – although China poses a broad challenge to the West with its economic system and political values, not simply to the United States. America's European allies have every reason to question the degree to which any shift in U.S. forces and modernization plans affects their security, just as the U.S. has reason to question the actions that each European state is taking to make its forces effective in supporting the levels of deterrence and defense in Europe.

Accordingly, there are four ways the U.S. and Europe should act to strengthen the alliance, rather than undermine it.

- Have the U.S. clearly and decisively make its continued commitment to NATO, Europe, and extended deterrence clear.
- Expand upon the *NATO 2030* strategy and work in the NATO 2021 summit in Brussels to develop clear national forces plans to achieve the goals set in each major proposal; to address the major weaknesses in national military forces and national contributions to NATO, especially in several key European forces; and to issue annual force plans.<sup>6</sup>
- Provide a classified and unclassified annual net assessment of the security balance and the levels of deterrence and defense capabilities that NATO provides.
- Focus on the broader Transatlantic need to compete with China and develop a collective approach to persuade it to cooperate and limit the risk of some future conflict.

## **Have the U.S. Clearly and Decisively Make Its Continued Commitment to NATO, Europe, and Extended Deterrence Clear**

“Rebalancing to Asia” is not the major problem the U.S. must deal with in providing effective forces for NATO. The U.S. can fund an adequate mix of forward deployed, power projection, and

deterrent forces and still meet the challenge from China. The problem lies in properly modernizing U.S. forces, making them more interoperable with NATO European forces, and dealing with the impact of the major force cuts it made after the break-up of the former Soviet Union in 1991. As is the case with most NATO European states, the years in which Russia seemed to be in the process of becoming a friendly democracy led the U.S. to cut its forward deployed forces too sharply long before the U.S. focused on the rising threat from China.

### **U.S. Force Cuts in Europe After the Break-Up of the Former Soviet Union**

The 1991-1992 edition of the International Institute of Strategic Studies (IISS) reports that the U.S. had an active strength in Germany alone of some 222,500 Army and Air Force personnel; some 5,000 main battle tanks; 2,200 armored infantry fighting vehicles; 2,420 artillery weapons; 42 surface to surface missiles; 279 attack helicopters; and 284 combat aircraft – including prepositioned equipment for most of the four divisions and an armored cavalry regiment. The total troop strength for the entire U.S. European Command (USEUCOM) actually deployed in Europe was 283,100 – not counting some 20,000 personnel at sea in the Mediterranean or any part of the U.S. Atlantic Fleet not stationed ashore in Europe.<sup>7</sup>

The IISS estimates that in the period before 2014 – and the Russian war with the Ukraine began – U.S. troop numbers dropped from 222,500 to some 40,500. It also estimates that the total troop strength for the entire U.S. European Command (USEUCOM) actually deployed in Europe dropped from 283,100 to 66,998.<sup>8</sup> The IISS has since ceased to report figures for major U.S. weapons holdings in Europe, but it is clear that the cuts in air and ground weapons were equally sharp, and prepositioning has been largely eliminated.

It is important to note, however, that most European states in NATO cut their forces by similar or greater amounts, had far lower rates of modernization, cut back sharply on sustainability – although the fact that many Eastern European states joined NATO after the break-up of the former Soviet Union and Warsaw Pact did add some forces – as well as created new burdens for forward defense.

The Russian invasion of the Ukraine did, however, largely bring a halt to U.S. reductions in U.S. forces in Europe until President Trump planned new cuts as part of his burden sharing program. These cuts, however, were limited, and some were halted when the Biden administration came to office. The IISS *Military Balance* for 2021 reports that the U.S. still deployed 37,100 army and air force personnel in Germany as well as a total of 67,150 troops in all of Europe.<sup>9</sup>

### **Examining Recent U.S. Force Trends in Europe in Detail**

The official manpower data issued by the U.S. Department of Defense make the same point. Somewhat ironically – given some European perceptions of the scale of U.S. force cuts – **Figure Four** shows that U.S. deployments to Poland, other East European states, and additions to the permanent training and power projection elements in the flanks actually experienced limited increases in total U.S. deployments in Europe over their pre-Trump levels in 2016 – although the net total may have dropped slightly if comparable figures on U.S. Navy and Marine Corps personnel at sea in the Mediterranean and Atlantic near Europe were counted. In any case, they do not reflect any meaningful cuts.

In many ways, President Trump's treatment of burden sharing and NATO was more noise than substance. U.S. capabilities are not determined by the total forces it has somewhere in Europe, but rather by the total forces it can project into a forward combat zone – both from within Europe and from the United States.

Many aspects of U.S. power projection, cyber, space, IS&W, precision and long-range conventional strike, deployable land-based air defenses, and abilities to support NATO and European allies have also increased steadily during the past decade or have become the subject of new U.S. force development programs.

In fairness to its European critics, the U.S. has done a terrible job of explaining these trends and putting them in context. Its budget submissions, strategy papers, and websites are largely intellectual vacuums and factual deserts when it comes to reporting the details of U.S. commitments to NATO, modernization and power projection programs, and cooperation in force modernization. While most European white papers and defense documents are equally vacuous, they have not sparked the same questioning about reliability and force cuts. If anything, there sometimes seems to be a gentleman's or ladies' agreement to avoid any public forms of debate that might lead to mutual embarrassment.

This situation has improved to some extent under President Biden. President Biden and senior members of his national security team have already reiterated the U.S. commitment to NATO. Broad policy statements, however, are not enough, either as a means of reassuring America's allies or of communicating the U.S. commitment in ways that help deter Russia and meet other potential threats.

There are several ways, however, in which the U.S. can make its commitment to Europe and NATO far clearer, none of which present problems in terms of classification and security:

- Provide a section in the President's annual defense budget submission to Congress that describes the current U.S. commitment to NATO Europe, Atlantic, the Mediterranean, and joint NATO and other security efforts involving European powers. Highlight recent and planned improvements in U.S. capability and describe U.S. power projection and extended deterrence capabilities as well as dedicated deployments. Make it clear that the U.S. continues to see NATO as a vital national security objective in detail.
- Issue an unclassified annual report on U.S. power projection capabilities that goes beyond force levels to describe the support the U.S. is providing in space; cyber; artificial intelligence (AI); Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR); battle management (BM); joint all-domain operations (JADO); military technology; arms transfers; and key shifts in force structure like long-range precision strike and multilayer missile and air defense. Make it clear that America's global capabilities are of direct benefit to European and all other allies and strategic partners.
- Work with NATO to develop a NATO net assessment of its capabilities and role in deterring and defending against threats to Europe.
- Actively brief on U.S. efforts to deal with the potential threat from China and make it clear that the U.S. is not focusing on China to the exclusion or expense of Europe.



**Figure Four: U.S. Active Duty Forces by Country in September 2008, December 2016, and June 2021**

Country	Sep 2008	Dec 2016	Jun 2021
Albania	1	1	13
Austria	10	22	28
Belgium	1,269	842	1,170
Bosnia and Herzegovina	3	2	10
Bulgaria	10	9	22
Croatia	6	3	13
Cyprus	9	11	13
Czechia	6	6	14
Denmark	17	10	17
Estonia	2	6	16
Finland	6	12	200
France	45	57	74
Germany	38,791	34,805	35,486
Greece	403	407	405
Hungary	11	212	84
Iceland	1	0	2
Ireland	1	2	7
Italy	11,808	12,102	12,535
Kosovo	1	378	13
Latvia	1	4	12
Lithuania	4	NA	16
Luxembourg	0	0	7
Macedonia	4	3	13
Malta	4	5	13
Moldova	1	1	9
Montenegro	0	0	8
Netherlands	577	398	433
Norway	76	83	82
Poland	30	59	169
Portugal	785	185	290
Romania	13	667	121
Slovakia	4	3	12
Slovenia	2	2	10
Spain	1,308	3,256	3,256
Sweden	7	8	16
Switzerland	8	14	20
Turkey	1,774	2,234	1,808
United Kingdom	9,042	8,479	9,515
<b>TOTAL</b>	<b>66,040</b>	<b>64,288</b>	<b>65,932</b>

Source: DMDIC, "Military and Civilian Personnel by Service/Agency by State/Country (Updated Quarterly)," June 2021, <https://dwp.dmdic.osd.mil/dwp/app/dod-data-reports/workforce-reports>; DMDIC, "Military and Civilian Personnel by Service/Agency by State/Country (Updated Quarterly)," December 2016, <https://dwp.dmdic.osd.mil/dwp/app/dod-data-reports/workforce-reports>; and DMDIC, "Military and Civilian Personnel by Service/Agency by State/Country (Updated Quarterly)," September 2008, <https://dwp.dmdic.osd.mil/dwp/app/dod-data-reports/workforce-reports>.

## **Expand Upon the *NATO 2030 Strategy* and Work in the NATO 2021 Summit in Brussels to Develop Clear National Forces Plans to Address the Major Weaknesses in National Military Forces and National Contributions to NATO**

There are good reasons for NATO and the EU to consult, and the discussion of options like creating a 5,000 personnel European rapid-deployment force can do little harm, although they may do little good. The key to successful deterrence and defense in Europe, however, is a far more effective NATO and European member country force planning and an emphasis on what is becoming a continuing revolution in military affairs.

NATO has already been through several major force planning exercises, beginning with the NATO force planning exercise in the 1960s; the developed joint approaches to assessing the balance in the late 1960s; and as part of the work done in developing Conventional Armed Forces in Europe (CFE), which involved joint wargaming exercises by the SHAPE Technical Center, U.S. Joint Staff and Office of the Secretary of Defense, and the British defense research center at Byfleet.

NATO needs to revitalize these exercises and give them public visibility, so it is clear what member countries are doing to strengthen their military commitments to NATO as well as to modernize and improve interoperability. It is clear from the different national funding efforts summarized in **Figure Two** that countries will report very different levels of capability, and that some countries need to carefully re-examine their current force plans as well as some key aspects of their command and control systems, intelligence efforts, sustainability, training, and other military activities.

The priorities for such improvements need to be worked out at the expert military level and reviewed by NATO's Military Committee and its civilian representatives, but some things are already all too clear.

### **Dealing with the Role and Capability of Post FSU European National Military Forces**

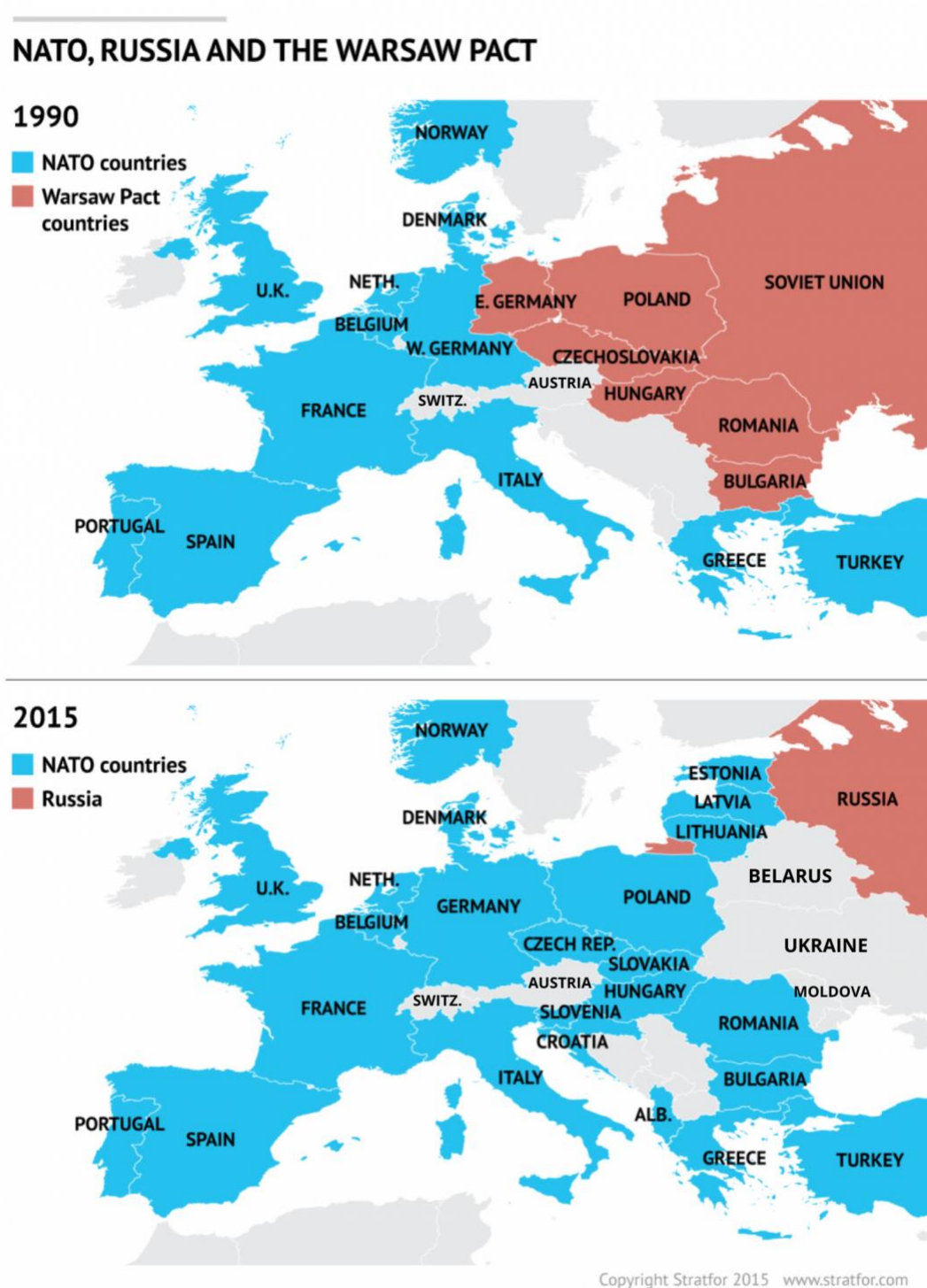
It is not easy to summarize the role and capability of the military forces of individual European states. One key set of changes is the shifts caused by the fact that so many Eastern European states are now members of NATO, the independence of former parts of Russia like Belarus and the Ukraine, and the shifts in the forward areas where NATO and Russia now confront each other.

NATO's new geography is summarized in **Figure Five**. It shows how much the membership and geography of NATO has changed since the break-up of the Former Soviet Union. These changes have added the military forces of most former Warsaw Pact states to NATO, and they have altered the major regions where NATO must conduct forward defense. At the same time, they have added major problems in terms of new areas of vulnerability, including adding nations that still depend heavily on Soviet and Warsaw Pact weapons and have poor interoperability with other NATO states – increasing the challenge of trying to coordinate 30 different national efforts rather than sixteen.

In many cases, the massive force cuts that European states have made since the end of the Cold War in 1990-1991 show that they have enacted more serious cuts in their force postures and rates of modernization than the U.S. has made in its forces for NATO – particularly given U.S. power

projection capabilities. The resulting force levels in 2021 illustrate all too clearly why a European alternative to NATO is impractical, particularly given the limited rate of investment in improved force quality and the limited progress in modernization, interoperability, and sustainability in many European national efforts.

*Figure Five: NATO Country Comparison Before and After Collapse of the Soviet Union*



**Note:** Two countries have been added to NATO since 2015: Montenegro (2017) and North Macedonia (2020).

**Source:** Adapted from “NATO, Russia and the Warsaw Pact,” 2015, Rane, <https://stratfor.com/>.

## **Looking at European Trends by Sub-Region and Country**

A review of the nation-by-nation forces of NATO Europe and some of their major weapons numbers in the data in the 2021 *Military Balance* again illustrates the need to focus on improving actual military capability rather than total spending and spending as percentages of GDP. It also makes the real-world level of European dependence on U.S. support all too clear.

It should be noted that such a review only tells part of the story. It does not address what are often serious problems in force modernization, a failure to maintain effective levels of readiness and sustainability, failures to adopt new tactics and technology, critical problems in many key aspects of interoperability, and problems in many of the other aspects of modern warfare where the U.S. can use national assets to support its allies and strategic partners.

In many areas, NATO could only fight effectively if the U.S. used its national space, cyber, command and control, targeting, and intelligence systems to improvise ways of coordinating given elements of interoperability. NATO would have to fight using European forces that do not conduct realistic field exercises and training. European readiness to deal with gray area warfare – integrating paramilitary and police where required – is very mixed. Defense capabilities against unmanned aerial vehicles and precision-guided conventional or nuclear armed missiles are negligible to limited, and the role to which British and French nuclear forces would provide extended deterrence is unclear.

Much would depend on the scenario. No one can totally dismiss the possibility of an escalating theater-wide conflict, however or be certain it would not escalate to nuclear levels. Russia might also try to create barriers that would limit NATO's willingness to respond. Its current focus on long-range conventional and low-yield nuclear precision strikes is one tool it might exploit in such a conflict.

Political, information, gray area, cyber warfare, spoiler operations, and intimidation all represent safer alternatives for Russia – and are ones where risk of escalation and mutually destructive high intensity combat would be limited. If Russia were to carry out an invasion in the forward area, it might well take the form of a gray area or highly political war using limited numbers of “volunteers” or “little green men.” Accordingly, NATO not only needs to be assessed in theater terms, but in terms of each major subregion, each country, and the role that non-aligned powers might play.

### **The Northern (Norway, Greenland/Iceland) and Neutral (Sweden and Finland) Flank**

Iceland and Greenland play an important role in supporting the defense of the Atlantic and in the increasingly important maritime routes through the Arctic, but they depend heavily on U.S. forces. The Northern Flank of continental Europe has always been something of an anomaly. Norway shares a common border with Russia in its far North, is relatively isolated from other NATO European powers except Denmark, and has close ties to two “non-aligned” states: Sweden and Finland. At the same time, three small Baltic states – Estonia, Latvia, and Lithuania – now share a common border with Russia. These post FSU shifts have redefined the security problems in defending the region.

*Norway* has limited defense expenditures. It cooperates closely with the United States, is modernizing its air force with F-35s, and is seeking to buy 4 German submarines. It does, however, have only limited forces to defend a nation bordering on Russia, and one with a

long coast and a strategic position that is of growing importance as a northern maritime passage from the Pacific to the Atlantic, which is rapidly becoming a growing reality.

Norway has a total of 23,350 actives and 40,000 low-grade home guard reserves. Its 8,400 personnel army has 36 operational tanks; 135 armored fighting vehicles; 390 APCs; and 48 artillery weapons. Its 2,400-personnel air force has 68 combat aircraft with F-16s and F-35s arriving. Its navy has 4,250 personnel with 6 submarines; 4 principal surface combatants; 12 patrol and coastal combatants; and 4 mine warfare ships.

Its defense plans depend to some degree on power projection by the U.S. Marines and U.S. airpower to support its limited number of F-35s and fleet. It has no major land-based missile and air defense systems.

- **Sweden** is “non-aligned” but has steadily improved its defense cooperation with the United States, Finland, and Britain, and it has relatively effective but small forces. It has 14,600 actives and 10,000 reserves. Its army has 6,850 actives with 120 operational tanks; 411 armored fighting vehicles; 1,064 APCs; and 27 artillery weapons. Its 2,750-personnel air force has 96 JAS 39C/D Gripen combat aircraft. Sweden has acquired Patriot air defense missile systems with some anti-ballistic missile defense capabilities.

Its 2,100 personnel navy has an 850 personnel amphibious force. It is relatively well equipped for a coastal defense mission with 5 submarines, 5 corvettes, 145 patrol and coastal combatants, but it has important limits in modernization and equipment. Defense of its island of Gotland present serious operational challenges. Its air force has good readiness standards but is aging.

- **Finland** has 23,800 actives; 100 operational tanks; and 107 combat aircraft. It too is “non-aligned” but has steadily improved its defense cooperation with the United States and Sweden. It has many effective military elements but has an aging territorial defense structure to cover a long border with Russia where it is all too possible that Russia can find weak points where it can use its modern armor and airpower.

Finland has not been able to finance balanced modernization plans and has problems in fully funding readiness, but it has improved its cooperation with NATO European states and the United States. It also has modernized its training and command control structures and is seeking to modernize its air forces. It has light Crotale air defense missiles but no advanced land-based ballistic missile or air defense missiles. It does have significant artillery strength, and its F-18C/D fighters give it moderate air combat capabilities.

### **The Baltic States**

The three small Baltic states are now independent, but they have only token military capabilities, share a border with Russia, and are near some of Russia’s most effective forces. They depend heavily on the risks Russia would face in confronting other European powers and the United States.

- **Estonia** (7,100 actives; 0 operational tanks; 0 combat aircraft) has light border and territorial defense forces but is spending more on defense. It is highly dependent on NATO for deterrence and defense and could not defend against a serious Russian attack.
- **Latvia** (6,250 actives; 3 T-55 training tanks; 0 combat aircraft) has light border and territorial defense forces but is also spending more on defense. It is highly dependent on NATO for deterrence and defense and could not defend against a serious Russian attack.



- **Lithuania** (22,000 actives; 0 tanks; 0 combat aircraft) has light border and territorial defense forces. It too is spending more on defense but also is highly dependent on NATO for deterrence and defense and could not defend against a serious Russian attack through Belarus, Latvia, or the Russian enclave of Kaliningrad.

### Central Region

Several powers in NATO's central region – such as Poland – are making important progress in some areas and are improving the ability of forces from North America and rear areas in Europe to deploy forward in a crisis. Several other powers like Britain and Germany, however, have made serious force cuts.

The changes in NATO membership have also created new areas for forward defense, most of which must now be held by former members of the Warsaw Pact. Aside from Poland, several of these powers are making very mixed efforts to develop military forces that are modern and interoperable with the forces of older NATO states.

As is the case with the NATO's former Southern Region, Russia also no longer has a long border with the Central region States. Belarus and the Ukraine are independent, although Belarus has steadily increased its military cooperation with Russia in recent years, and some of its exercises have increased their ability to cooperate in a Russian land thrust against NATO. This geography makes Poland a key power in defending the central region and in NATO capability to deter Russia's conventional land and air forces, although much depends on the Ukraine's remaining status as neutral or hostile to Russia.

Russia also is focusing heavily on improving its capability to conduct long range precision missile and UCAV strikes on all of the Central Region and NATO European states – and on creating improved fighter and land-based surface-to-air and missile defenses – as well as pursuing low yield nuclear options. It also has steadily improved its capabilities for gray area and political warfare as alternative to the overt use of military force.

- **Britain** has spent more on defense in recent years, but it has made major force cuts. It has left the EU, and its recent white papers seem to emphasize a global role over a role in Europe. In its 1990-1991 military balance, the IISS reports that it had 300,100 actives and 347,100 reserves. Its Army had 149,600 actives; 1,314 main battle tanks; 4,490 other armored vehicles; and 729 artillery weapons. Its air force had 422 fighters and attack aircraft. Its Navy had 24 submarines, 48 principal surface combatants, 34 patrol and coastal combatants, 35 mine warfare vessels, and 7 amphibious ships.

The 2021 edition of the IISS *Military Balance* reports that Britain had 148,500 actives and 78,600 reserves. Its Army had only 83,500 actives; 277 main battle tanks; 6,654 other armored vehicles; 1,238 AUVs; and 598 artillery weapons. Its Air Force had 162-225 fighters and attack aircraft. Its Navy had 11 submarines, 21 principal surface combatants, 25 patrol and coastal combatants, 13 mine warfare vessels, and 2 amphibious ships.

- **Belgium** (25,000 actives; 0 tanks; 54 combat aircraft) spends comparative little on defense. It now has too little armor to play an active role in forward area combat and questionable capability to sustain its small air force in active combat or to fund conversion to 5<sup>th</sup> generation systems. It does not have significant land-based air or missile defenses.

- The **Netherlands** (33,600 actives; 0 tanks; 73 combat aircraft) has modernized some of its forces but spends comparatively little. It has linked its forces to improved interoperable operations with Belgium, Denmark, and Germany, but it would have to operate directly with the forces of other countries in the face of any serious contingency. It does have some land-based air and missile defenses, but it lacks heavy armor and would be more of a mix of combat support elements than an independent force.
- **Denmark** (15,400 actives; 0 tanks; 30 operational combat aircraft) is one of the few smaller powers that plans for some degree of modernization, but it only spends a limited amount on its total defense budget and modernization efforts. It does not have significant land-based air or missile defenses. Its potential needs to help support and provide access to Sweden and Finland present serious challenges, as would a crisis or conflict in the Baltic states.
- **France** funds moderate levels of defense effort. It has and actively sought to improve European defense cooperation and is slowly modernizing on a broad level. It has significant power projection capability, and it has advanced plans in 2020 to improve its capability for high intensity combat. It also has, however, made major force cuts relative to its Cold War levels.

The IISS reports that in 1990-1991, it had 453,100 actives and 419,000 reserves. Its Army had 280,300 actives; 1,349 main battle tanks; 5,782 other armored vehicles; and 1,403 artillery weapons. Its air force had 845 combat aircraft. Its Navy had 17 submarines, 41 principal surface combatants, 24 patrol and coastal combatants, 23 mine warfare vessels, and 9 amphibious ships.

The 2021 edition of the IISS *Military Balance* reports that it had only 203,250 actives and 41,050 reserves. Its Army had 114,700 actives; 222 main battle tanks; 1,817 other armored vehicles; 1,238 AUVs; and 265+ artillery weapons. Its Air Force had 279 fighters and attack aircraft. Its Navy had 8 submarines, 22 principal surface combatants, 20 patrol and coastal combatants, 17 mine warfare vessels, and 3 amphibious ships.

Its capability to deploy its land forces forward in the central region and sustain them in combat is unclear, however, and so is its future ability to fund its modernization and improved sustainability plans. Its plans for developing long-range conventional strike capabilities and advanced forms of all domain operations that will be fully interoperable with the U.S., U.K., and other NATO powers are unclear, as is the value of its independent nuclear force in providing any degree of extended deterrence.

- **Germany** has sought to improve cooperation between central region powers but still badly underfunds readiness and sustainability, modernization, and key capabilities like land-based missile and air defense. Its force structure no longer seems to be large enough or sustainable enough to support its critical role in the forward defense of the Central Region.

It has made critical force cuts. In 1990-1991, it had 476,300 actives and 1,009,400 reserves. Its Army had 335,000 actives; 7,000 main battle tanks; 15,536 other armored vehicles; and 4,579 artillery weapons. Its Air Force had 845 combat aircraft. Its Navy had 24 submarines, 14 principal surface combatants, 45 patrol and coastal combatants, and 54 mine warfare vessels.

The 2021 edition of the IISS *Military Balance* reports that it had 183,500 actives and 30,5050 reserves. Its Army had 62,150 actives; 245 main battle tanks; 1,607 other armored vehicles; 1,238 AUVs; and 262 artillery weapons. It's Air Force had 279 fighters and attack aircraft. Its Navy had 8 submarines, 22 principal surface combatants, 20 patrol and coastal combatants, 17 mine warfare vessels, and 3 amphibious ships.

- **Poland** has comparatively high levels of total military and modernization spending. It has a force of some 114,500 personnel with 808 main battle tanks and 94 combat aircraft. It has improved its forward defense capability and signed a bilateral defense cooperation agreement with the U.S. as well as cooperates with other NATO states through the Visegrad Group – Czech Republic, Hungary, Poland, and Slovakia, which includes the ex-Warsaw Pact powers that now form the forward area in the Central region – and through the Bucharest Nine – Poland, Romania, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania and Slovakia.

Russia could attack through Kaliningrad, across the regular Russian border, or possibly through Belarus, but Poland has a relatively large force structure (114,500 troops) and is slowly converting to Western weapons but still relies heavily on Russian weapons designs and aircraft. It has no missile defenses and its land-based air defense are older Russian systems. Interoperability and all domain operations present major challenges.

- **Slovakia** (15,850 actives; 30 operational tanks; 18 combat aircraft) is seeking to modernize and acquire F-16 aircraft but has very low levels of overall defense effort and modernization activity as well as token military capabilities at best in dealing with any Russian force that succeeded in advancing through the Ukraine or Poland. It is developing new defense plans but would be reliant on other NATO powers in any meaningful conflict.
- **The Czech Republic** (24,900 actives; 30 operational tanks; 38 combat aircraft) has long term defense plans for 2030 and 2035 but has low levels of total defense and modernization spending. It would only have token military capabilities in dealing with any Russian force that succeeds in advancing through the Ukraine, Poland, or Slovakia, and it would be heavily dependent on other NATO powers for air defense. It has established goals for increased capability, but it is unclear that it can meet them.
- **Hungary** has a relatively small military force of 27,800 personnel with a mix of army, air, and joint forces that are largely equipped with Warsaw Pact-era major weapons except for some Leopard Tanks and Gripen C/D fighters. It has moderate levels of total defense spending. It has increased levels of equipment spending, but it has no modern or land-based air or missile defenses and only maintains a brigade sized land force and one active combat squadron with 14 aircraft. Any defense against a Russian major combat threat that penetrated through the Ukraine, Slovakia, or Romania would have to come from other nations.
- **Romania** forms a bridge between NATO's Central Region and Southern Flank, but it does not share a border with Russia or Belarus. A Russian attack would have to come through the Ukraine or Moldova, or from the Black Sea. Romania has comparatively high levels of total defense spending but moderate levels of spending on modernization.

It currently has 35,800 actives; 377 operational tanks; and 60 combat aircraft. Its major weapons holdings are largely Warsaw Pact-era systems with some F-16s and Patriot

missiles, NATO European ships, and other systems. It is slowly shifting to Western weapons, some used or older. It is larger and better equipped than some other former Warsaw Pact states but still has limited warfighting capability.

### **The New Southern Flank**

NATO does not really have a Southern Flank in the classic historical sense of the term, since it no longer shares a long common border with a Russian dominated Warsaw Pact. A major Russian land thrust would have to come through Belarus and the Ukraine, and the Ukraine – while neutral – is still fighting a low-level war with Russia. Austria and Switzerland are neutral and are not major objectives in any case. Accordingly, Russian land forces would have to drive through Belarus and the Ukraine, and then through Hungary or Romania, to reach the Southern Flank states.

Unless Belarus integrates its forces with Russia, it seems likely that Russia would choose to use land forces to attack the central region or rely on its growing long-range air and missile precision conventional strike capabilities to intimidate or force the Southern Flank states to comply with its objectives.

At this point in time

- **Bulgaria** would have to be attacked through Romania or from the Black Sea. Bulgaria currently has 36,950 actives; 90 tanks; and 24 combat capable aircraft. It has moderate levels of total defense and modernization spending. It is equipped with aging Warsaw Pact land, naval, and air weapons. It has some aging SA-5 and SA-3 major air defense missiles. It has defense cooperation agreements with the United States and some European states, but it has made little progress in developing modern or interoperable forces.
- **North Macedonia** is a small nation located between Serbia, Bulgaria, Greece, and Albania, with one major transit route running north to south from Serbia to Greece. became NATO's 30<sup>th</sup> military power in March 2020, it has developed new defense plans and a new strategy, and it has made significant increases in its defense and modernization spending. It is, however, a comparatively tiny military power with 8,000 actives and 4,850 reserves. It only has 321 aging T-72A tanks, 211 other armored vehicles, and 87 artillery weapons. It does not have a separate air force or navy, its only combat aircraft are 12 attack helicopters (some in storage), and it has no major surface-to-air or land-based missile defenses.
- **Greece** is a moderate military power with 142,700 actives; 1,228 tanks; and 230 combat capable aircraft; as well as Patriot, SA-15, and Crotale air defense missiles. It has increased total and modernization spending because of a perceived rise in the threat from Turkey and some degree of economic recovery. While Greece plays a role in defending Europe against Russia and securing the Mediterranean, its large forces are also designed to defend Greece and Cyprus from Turkey. It also hosts an important U.S. air and naval facility in Crete, and it has ties to France. Its forces are relatively well trained, although its financial problems in recent years have limited its rate of modernization.
- **Turkey** is also a moderate military power which has steadily improved some aspects of its power projection capabilities over time. It does, however, focus on Greece as a potential threat. It also is making power and increasingly more limited commitments to NATO, and it now focuses heavily on the Middle East. Its purchase of Russian systems has led the U.S. to exclude it from the F-35 program. Total defense spending is moderate, but equipment spending is high.

In 2021, Turkish armed forces had 355,200 actives and 378,700 reserves, many with limited training and equipment. Its Army had 260,200 actives with 2,378 main battle tanks; 895 other armored vehicles; 5,266 APCs; 2,020 artillery weapons; and 89 armed helicopters. Its Air Force had 50,000 personnel and 306 combat capable aircraft – including F-16s. It has tank surface-to-air missile launchers and 32 Russian S-400 land-based surface-to-air missile launchers and missile defenses, and it was acquiring more. Its Naval forces had 45,000 personnel; 12 submarines; 16 principal surface combatants; 45 patrol and coastal combatants; 5 amphibious ships; and 15 mine warfare vessels.

### **The Adriatic Flank**

Russian land forces would need to transit Belarus and possibly breakthrough the Ukraine to reach NATO's forward defense and attack the relatively small members of NATO in the Adriatic area. Most now have only limited defense capability and very marginal capability to deal with Russia's growing long-range precision strike capability.

- **Slovenia** has increased its defense spending in recent years, but it still spends comparatively little on defense and modernization. Its closest route to Russia goes through Hungary and does not include major roads. It only has limited access to the Adriatic. Its defense plans have not been successfully implemented, although it has improved its cooperation in some aspects of air defense with the NATO. Its active forces have 15,850 personnel and it has no reserves. Its army has 6,250 actives; 30 aging T-72 tanks; 274 armored fighting vehicles; 101+ APCs; 15 attack helicopters; and some S-300/SA-10 land-based air defense missiles. Its air force has 11 MiG-29 combat capable aircraft.
- **Croatia** has made major increases in total defense and modernization spending since 2014, but its resources remain limited. Its complex geography gives it a long coast on the Adriatic, but its closest borders to Russia are with Hungary and a neutral Serbia. It does not present an attractive land route for Russian attack. It has 15,200 actives and 18,350 reserves. Its army has 15,200 personnel; 75 M-84 tanks; 102 armored fighting vehicles; 198 APCs; 67 artillery weapons; and no attack helicopters or major land-based air or missile defenses. Its air force has 11 aging MiG-21 fighters. Its navy has 5 patrol and coastal combatants.
- **Montenegro** has moderate levels of spending on defense and low levels of spending on modernization. It is a small coastal power on the Adriatic with limited transit routes through Bosnia and Herzegovina, Serbia, and Albania. It is seeking to integrate into NATO, but its forces are designed for national defense and are not capable of any form of power projection. At present, it has a very small army with 1,275 actives that has limited capability relative to its paramilitary police forces and has some 28 armored fighting vehicles and 30 artillery weapons. It does not have combat capable aircraft or attack helicopters and no land-based air or missile defenses. Its navy has 4 patrol and coastal combatants.
- **Albania** has a long Adriatic coast, but any major attack would face major problems and have to come through Montenegro, Serbia, or North Macedonia. It has increased its spending on defense and modernization in recent years, but funds remain limited. It is seeking to eliminate its remaining Russian systems and modernize its air force and navy. It now has some 8,000 actives and no reserves. Its land forces have 3,000 personnel and 40 APCs. Its air force has no combat aircraft, and its navy has 5 patrol and coastal combatants, while its coastguard has 22 patrol and coastal combatants.

### The Mediterranean Flank

Several major Southern Flank powers are now far more distant from the forward area than when NATO was founded. Their capability to deploy forward and conduct intense combat has always been limited, and they are now more Mediterranean powers than powers that would commit land forces to the forward area. They can, however, play a major role in peacekeeping and counterterrorism, and Italy has significant power projection capability for low intensity warfare. Moreover, each has the resources to play a more active role in the Mediterranean and North Africa.

- **Italy** is the major power in NATO's Mediterranean flank and has spent added funds on modernization in recent years. It has not fully funded its overall force structure, readiness, and sustainability, however, and it has made major force cuts after the collapse of the FSU. In its 1990-1991 military balance, the IISS reports that Italy had 361,400 actives and 584,000 reserves. Its Army had 96,700 actives; 200 main battle tanks; 3,885 other armored vehicles; and 729 artillery weapons. Its air force had 449 fighter and attack aircraft. Its Navy had 9 submarines, 32 principal surface combatants, 18 patrol and coastal combatants, 15 mine warfare vessels, and 2 amphibious ships.

The 2021 edition of the IISS *Military Balance* reports that Italy had 165,500 actives and 18,300 reserves. Its Army had 83,500 actives; 277 main battle tanks; 1,382 other armored vehicles; 994 artillery weapons; and 36 armed helicopters. It had 20 longer-range SAMP/T surface-to air-missile launchers. Its Air Force had 223 combat capable aircraft. Its Navy had 8 submarines, 18 principal surface combatants, 16 patrol and coastal combatants, 10 mine warfare vessels, 3 amphibious ships, 18 combat aircraft, and 47 ASW helicopters.

- **Spain** spends comparatively little on defense but has recently spent a larger share on modernization. The 2021 edition of the IISS *Military Balance* reports that Spain had 122,850 actives and 14,900 reserves. Its Army had 71,300 actives; 327 main battle tanks; 496 other armored vehicles; 903 APCs; 382 artillery weapons; and 24 armed helicopters. Its Air Force had 223 combat capable aircraft – including Eurofighters and F-18s. It had 56 major land-based surface-to-air missile launchers but no missile defenses.

Spain's Naval forces had 2 submarines, 11 principal surface combatants, 23 patrol and coastal combatants, 6 mine warfare vessels, 3 amphibious ships, 13 combat capable aircraft, and 24 ASW helicopters. It has a force of 5,340 marines.

- **Portugal** spends a moderate amount on defense but comparatively little on modernization. The 2021 edition of the IISS *Military Balance* reports that Portugal had limited armed forces with 27,250 actives and 211,700 reserves with limited training and equipment. Its Army had 27,250 actives; 37 main battle tanks; 73 other armored vehicles; 406 APCs; 86 artillery weapons; and 24 armed helicopters. It had no major land-based surface-to-air missile launchers or missile defenses. Its Air Force had 35 combat capable aircraft – including F-16s. Its Naval forces had 2 submarines, 5 principal surface combatants, and 21 patrol and coastal combatants, and a small force of 960 marines.



## **Provide a Classified and Unclassified Annual Net Assessment of the Security Balance and the Levels of Deterrence and Defense Capabilities that NATO Provides**

Just as there is a critical difference between strategic rhetoric and having an actual strategy, there is a critical difference between talking in broad terms about military capabilities and having a mix of strategy, plans, programs, and budget that can be shown to be effective. The only way to do this is to examine the forces on each side in detail, look at key scenarios, and provide net assessments of the balance of capabilities to deter and defend.

Here both NATO and its member countries are currently all rhetoric and no substance at the open source level. They do not provide any assessments of the current and future balance, the relative effectiveness of NATO in deterring and defending, and the strengths and weaknesses on each side. These are no country-by-country assessments of the progress being made at the regional or national level, of Russian military efforts and capabilities, of the success of counterterrorism activities, or of out-of-area operations. To the extent NATO justifies its existence, it does so largely on the basis of political momentum – something that may have worked during the Cold War but has far less political and popular impact today.

This might make sense if there was a real-world secret to be kept, but there are no real secrets from Russia at the strategic level. The lack of transparency in providing a real-world justification of NATO at the net assessment level has two real explanations. First, the failure to learn from experience. And second, to avoid political controversy and embarrassment.

Preparing an annual classified and unclassified net assessment of the security balance and the levels of deterrence and defense capabilities that NATO provides is a critical step in justifying adequate defense efforts and winning valid public support. It provides a critical focus for debating what needs to be done, educating voters and political figures, and showing that deterrence is adequate in preventing and limiting actual conflict. It also forces decision makers and legislators to actually plan and analyze – activities which are often rarer in practice than many realize.

## **Focus on the Broader Transatlantic Need to Compete with China and Develop a Collective Approach to Persuade It To Cooperate and Limit the Risk of some Future Conflict.**

Finally, the U.S. and Europe need to come to grips with the fact that China is emerging as a new authoritarian superpower, and one with far more military and economic power than Russia. Geography alone means that the U.S. and its Asian and Pacific partners must play the key role in dealing with China's growing military threat. Europe needs to recognize that the U.S. will need to shift some resources to accomplish this, and that European states must play a role in competing with China and in finding ways to persuade it to shift back towards global cooperation and play a peaceful role in dealing with outside states.

At the same time, the U.S. and Europe need to pay equally close attention to the growing challenge from Russia and the growing threat posed by Russian and Chinese military cooperation. The U.S. and Europe also need to pay the same attention to the fragile structure of security, shown by the previous analysis, which has emerged out of the force cuts that the U.S. and older members of NATO have made since the break-up of the former Soviet Union and Warsaw Pact and out of the

weaknesses in the new forward areas in NATO because of the limits to the Eastern European forces that have joined NATO since the break-up of the FSU and the Warsaw Pact.

### **The Changing Role of the Superpowers: 1991 to 2021**

There is no easy way to illustrate the scale of the changes in the military balance between the three current superpowers since many are qualitative rather than quantitative. **Figure Six** does illustrate the quantitative changes in some detail. It shows just how much smaller U.S., Russian, and Chinese force numbers are today in many such metrics and that their current forces bear only a limited resemblance to the forces they deployed in 1991.

At the same time, the previous analysis has shown that the qualitative improvements in Russian forces mean that cuts in force numbers in **Figure Six** do not mean cuts in Russian capability to threaten, pressure, or fight in a Europe where NATO countries have made at least equal reductions in their forces numbers. Moreover, **Figure Six** shows that the major force cuts the U.S. made after 1991 match those of its European partners.

Russia relied heavily on military mass until the break-up of the FSU, but it has steadily improved its force quality in many areas like air and missile defense since 1991. It has remained competitive in conventional weapons modernization, and it has aggressively modernized its nuclear forces. It has shown its ability to compete in gray area warfare in Libya and the Ukraine, created new forward capabilities in Syria, and returned to the Mediterranean – as well as steadily improved its cooperation with China in Asia and the Pacific.

Russia may have lost military and economic strength because of the break-up of the FSU and the liberation of East European states – many of which have joined NATO. Yet, many of these former Warsaw Pact states have failed to modernize their forces and make them more interoperable with NATO.

The fact that the expansion of NATO has fundamentally changed the strategic map of Europe does not mean that most of the states that have joined NATO since the break-up of the FSU or that they do not depend on the U.S. and other European states for deterrence and defense. As the previous analysis has shown, rhetoric about European defense cooperation cannot ignore the critical new vulnerabilities in NATO's new forward areas. Russia remains a major and growing threat.

**Figure Six: Balance of U.S., Russian, and China Military Forces in 1991 (After Break Up of Soviet Union) and in 2021**

	1991			2021		
	U.S.	Russia	China	U.S.	Russia	China
Defense Expenditures (\$US billions)	\$293.0	\$128.8	\$6.00	\$785.0	61-65.0	?
Defense Budget (\$US billions)	\$287.5	\$133.7	\$7.56	\$731.0	45-50.0	193.0
Active Military Personnel	2,029,600	3,400,000	3,030,000	1,388,100	900,000	2,035,000
Reserve Military Personnel	1,721,700	5,239,000	1,200,000	844,950	2,000,000	510,000
SSBN	34	60	1	14	11	6
ICBMs	1,000	1,388	8	400	336	104
IRBM	0	0	60	0	0?	110+
MRBM	0	0	0	0	0?	186
Nuclear Bombers	277	177	?	66	76	?
<b>Army Active Personnel</b>	731,700	1,875,000 <sup>d</sup>	2,300,000	485,400	280,000	965,000
Main Battle Tanks	15,585	54,400	1,420	2,509	2,840	5,650
Other Armored Fighting Vehicles	6,789	37,000	2,500	4,810	6,920	8,480
Armor Personnel Carriers	26,480	50,000+	3,200	10,549	6,100+	3,950
Artillery (Towed, SP, MRL)	2,323	51,200	19,800	2,962	3,134+	6,584
Surface-to-Surface Missiles	?	1,350	?	168	150	297
Attack/Armed Helicopters <sup>a</sup>	1,653	2,270	8?	714	?	
<b>Navy Active Personnel</b>	584,800	450,000	227,000 <sup>d</sup>	346,500	150,000	260,000
Tactical Nuclear Submarines	86	111	4	51	17	6
Tactical Conventional Submarines	0	126	88	0	21	47
Principal Surface Combatants	207	218	56	124	31	80
Aircraft Carriers	13	5	0	11	1	1
Combat Capable Aircraft	1,242	1,354	880	989	219	426
ASW Helicopters	412	287	65	111	44	32
Cruisers/Battleships	48	38	0	24	4	1
Destroyers & Frigates	146	174	56	89	26	77
Patrol and Coastal Combatants	30	382	869	83	125	25
Principal Amphibious Ships	65	78	61	32	20	6
Mine Warfare	28	581	128	8	41	56
<b>Marine/Naval Infantry/Coastal Defense</b>						
Active Personnel	195,700	41,500	33,000	180,950	37,000	35,000
Tanks	719	1,050	?	0	330	?
AFVs, and APCs	1,739	1,649	?	485	1,500	85
Artillery	477	1,130	?	852	405	40+
Active Combat Capable Aircraft	162	na	na	362	?	?
Armed Helicopters	122	na	na	141	?	?
<b>Air Force Active Personnel</b>	517,400	420,000	470,000	331,400	165,000	395,000
Bomber	see Strategic	410	370 <sup>e</sup>	139	137	176
Fighter Ground Attack (FGA)	3,813 <sup>c</sup>	2,240	4,500	1,000	415	866+
Fighter	<sup>b</sup>	2,130	?	261	185	517
Attack	<sup>b</sup>	na	?	143	264	140
Recce	36	475	?	0	0	0
EW, IS&R, ELINT	?	?	?	36	92	71
AE&W/C2	23	?	?	35	17	24
Tanker	?	?	?	156-181	333	13
Transport/Airlift	943	620-1,820	600	206	445	238+
Major Surface-to-Air Missile Launcher	707	8,650	?	480	536?	552+
ABM Launch Units	4?	100	0	42	68	0

Notes: <sup>a</sup> Army armed helicopters include those in national air force. <sup>b</sup> Included in total for U.S. FGA fighters. Does not include 904 U.S. reserve combat Aircraft in 1991. <sup>c</sup> Includes Air Defense Troop personnel & missile Launchers. <sup>d</sup> Less Marines and Coast Defense. <sup>e</sup> Some nuclear and/or missile armed.

Source: Adapted by the author from relevant country sections of the IISS, *Military Balance, 1919-1992 and 2021*

## Understanding the Qualitative Scale of Change in China

What **Figure Six** cannot illustrate, however, is the sheer scale of change in areas like space, stealth, precision strike, major weapons design, missile warfare and defense, artificial intelligence, C4I/battle management, IS&R (intelligence, surveillance, and reconnaissance), and nuclear forces that have steadily reshaped the forces of both Russia and China since 1991 – and that will further revolutionize deterrence and defense over the coming decades.

These qualitative changes have created modern Chinese military forces that no longer rely on mass, aging weapons and military organization or on aging tactics, but that they have a steadily growing capability to project power on a global basis. Chinese forces have changed radically since 1990 and have done so to the point where China is becoming a peer competitor to the United States in Asia and could become equal or superior to the United States on a global basis at some point between 2030 and 2045.

Moreover, the U.S. and Europe need to look beyond the military dimension and recognize that China's focus on integrating both military and economic development has already made China a direct competitor to both the U.S. and Europe in STEM (science, technology, engineering, and mathematics), most aspects of manufacturing capability, and many aspects in terms of global influence.

While any effort to show the scale of these changes has many uncertainties and limitations, both Americans and Europeans need to consider the trends illustrated in the following figures and find as good of a common approach to dealing with them as possible. They cannot afford the lack of dialogue and mutual analysis and planning that led to incidents like the recent French and U.S. crisis on submarine sales to Australia:

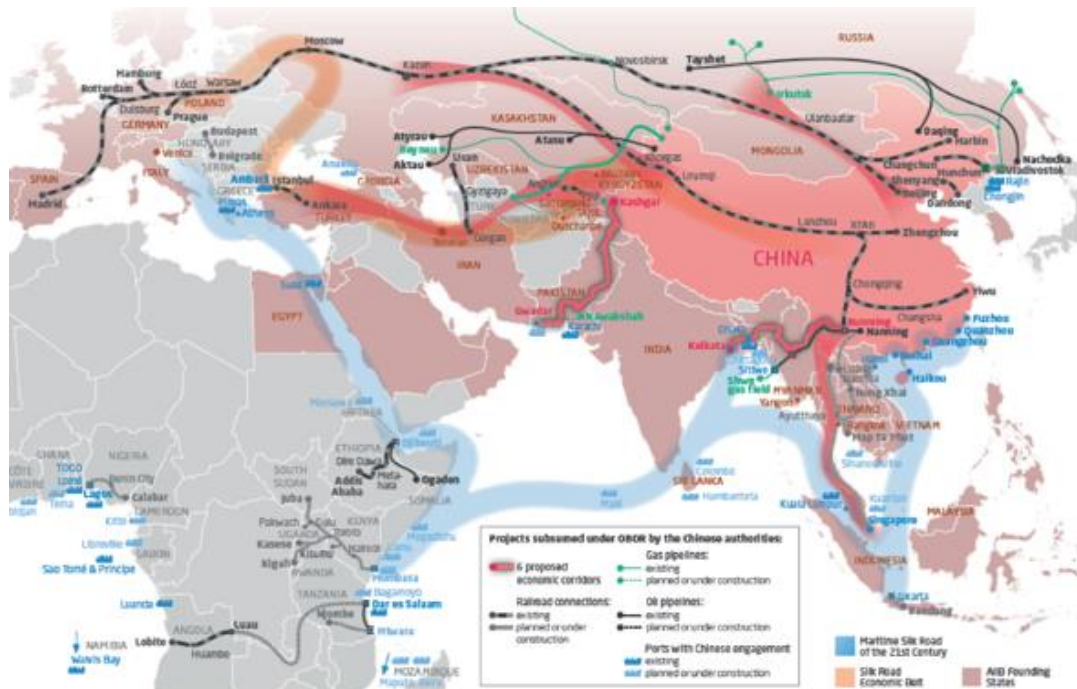
- **Figure Seven – Part One: China's Growing Global Impact** shows the massive expansion of China's economic and strategic activity and its impact on Europe as well as the rest of the world.
- **Figure Seven – Part Two: Different Estimates of Chinese Versus U.S. GDP and GNI** shows that China has already overtaken the U.S. in terms of total economic size by some metrics.
- **Figure Seven – Part Three: China as the Arsenal of Autocracy** shows the China has already overtaken the U.S. and other states in manufacturing capacity and has become a massive competitor in RDT&E spending.
- **Figure Seven – Part Four: Comparative U.S., Other NATO, Chinese, and Russian Defense Spending: 1990-2020** shows that China now sharply outspends Russia on military forces, nearly equal to NATO Europe, and may reach parity with the U.S. by 2035.
- **Figure Seven – Part Five: Trends in Chinese Military Expenditure by Year** shows that China now spends 42 times more on military forces per year than it did in 1990.
- **Figure Seven – Part Six: Inventories of Nuclear Warheads in Chinese, Russian, U.S., European, and Other Nuclear Forces in 2021** shows China is now expanding its strategic and theater nuclear forces. China now has far larger nuclear forces than Britain and France and is acquiring a wide range of dual capable precision strike systems.

- ***Figure Seven – Part Seven: Japanese MoD Estimate of Rates of Key Aspects of Chinese Military Modernization*** illustrates the fact that China is improving the strengths and quality of its conventional forces more quickly than the U.S. and European powers.
- ***Figure Seven – Part Eight: The Expanding Chinese Naval Threat*** illustrates the extent to which China already is a major threat to the U.S. role in the Pacific, and it helps illustrate why the AU/UK/US agreement and Australia's willingness to buy nuclear submarines that can compete with Chinese naval forces is so important.

These charts, however, only hint at the full scale of the rising Chinese challenge in the Pacific, Asia, Europe, and the world. They do not address many aspects of Chinese force development and strategic competition or the rising cooperation between China and Russia and their military activity. They only hint at the extent to which the West faces a broad economic challenge as well as a military one, and the level of effort China is putting into taking a global lead in research, development, and applied technology. As a result, the West now faces two “superpowers” rather than one.

## Figure Seven – Part One: China's Growing Global Impact

### Belt and Road



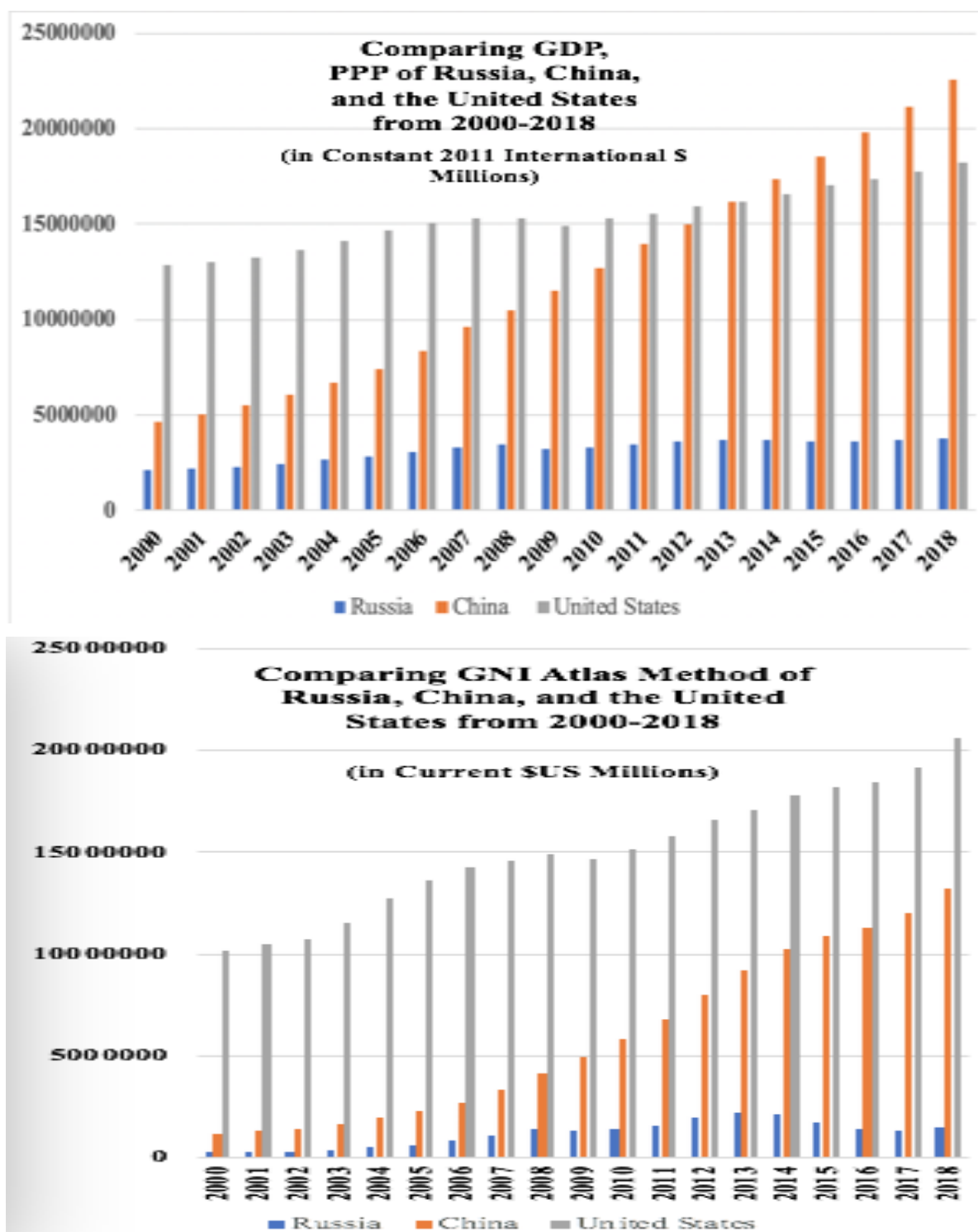
### China's Growing Global Influence



**Source:** Brian Wang, MERICS China Monitor, January 20, 2017, <https://www.nextbigfuture.com/2017/01/philippines-will-attend-chinas-one-belt.html>; and Office of the Secretary of Defense, *Annual Report to Congress Military and Security Developments Involving the People's Republic of China 2017*, May 15, 2018, p. 44, [https://www.defense.gov/Portals/1/Documents/pubs/2017\\_China\\_Military\\_Power\\_Report.PDF](https://www.defense.gov/Portals/1/Documents/pubs/2017_China_Military_Power_Report.PDF); Reformatted from Lt. General Mike Minihan, "United States Indo Pacific Command," NDU WMD, July 7, 2020, <https://us-iti.bbcollab.com/collab/ui/session/playback/load/7cf6bb5c7aaa4aa9930d7bd7b8df0b00>; and FAS [https://fas.org/wp-content/uploads/2020/09/PACOM2020\\_NDU-WMD-Brief2020\\_Minihan070720.pdf](https://fas.org/wp-content/uploads/2020/09/PACOM2020_NDU-WMD-Brief2020_Minihan070720.pdf).



*Figure Seven – Part Two: Different Estimates of Chinese versus U.S. GDP and GNI*



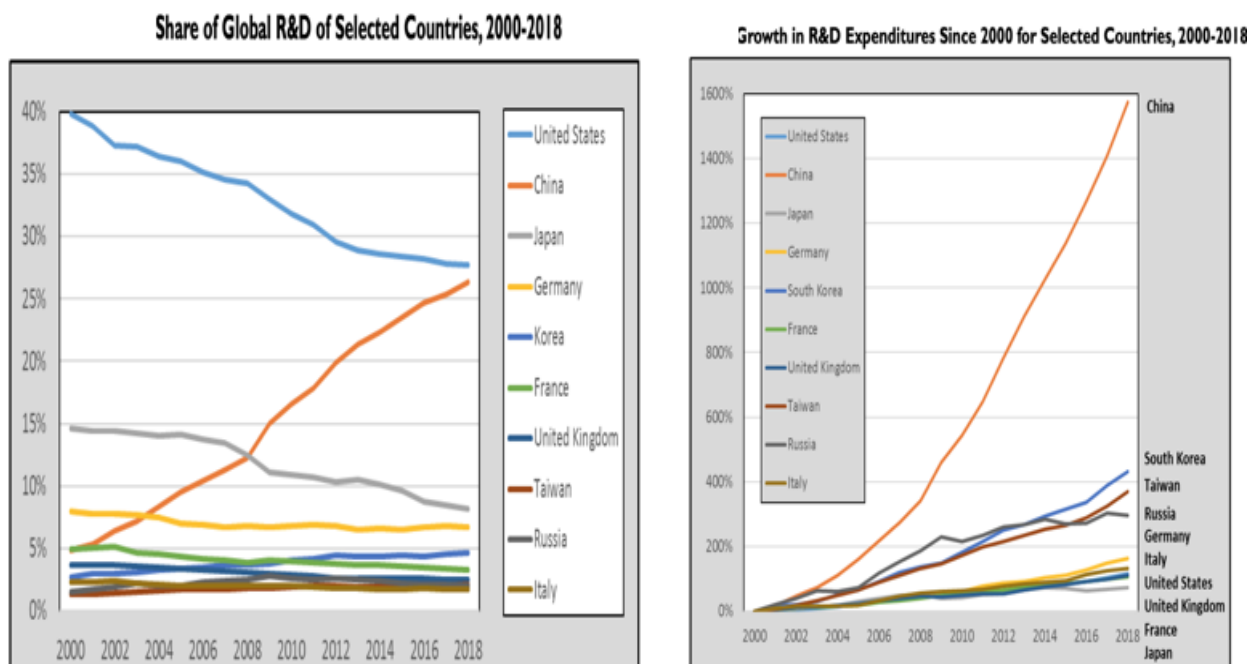
Source: World Bank, "Country Database: China," accessed November 2020.

### *Figure Seven – Part Three: China as the Arsenal of Autocracy*

#### **China has become the World's Manufacturing Superpower**

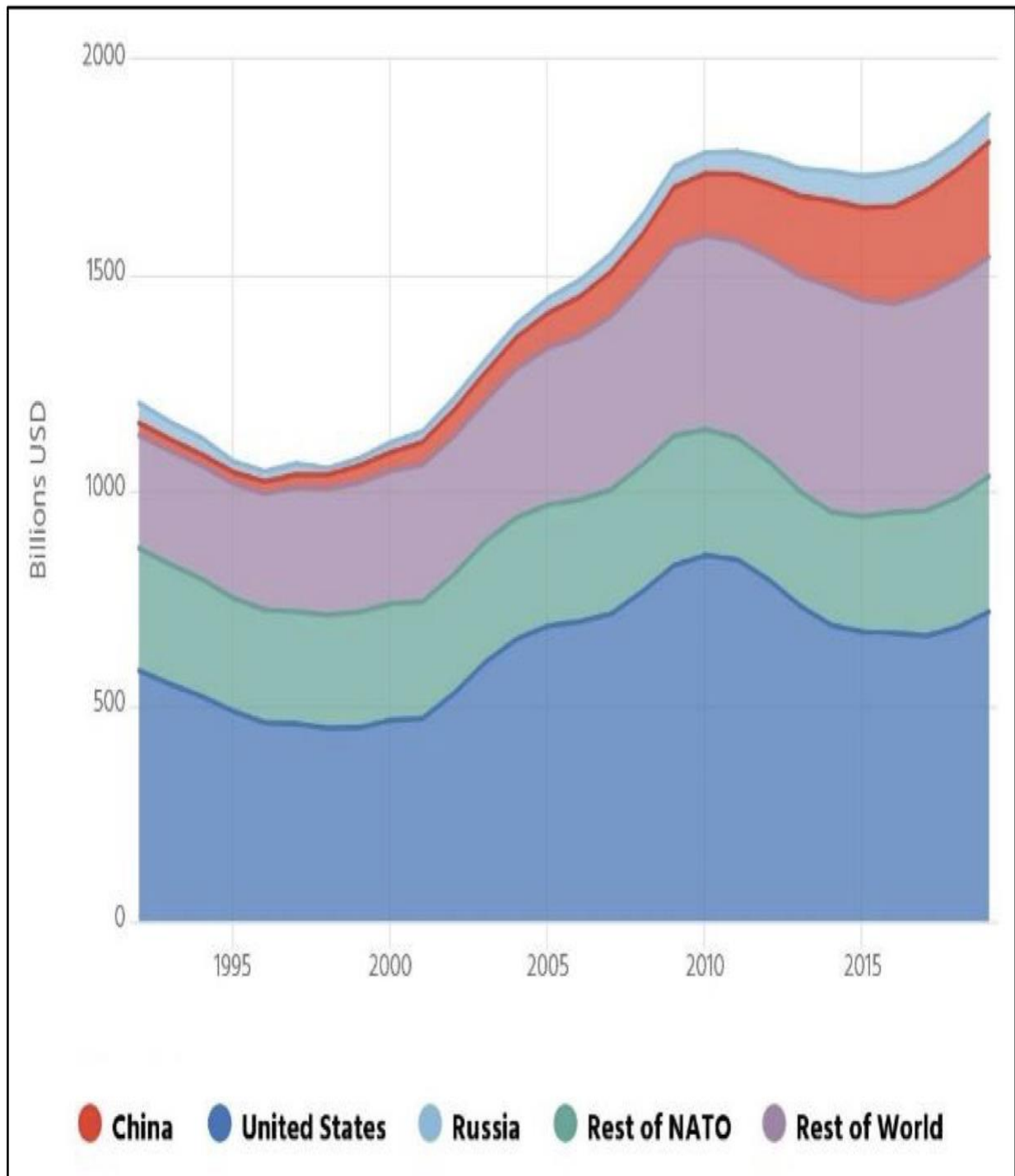


#### **(Annual Expenditure on Research and Development (Adjusted for Purchasing Power Parity))**



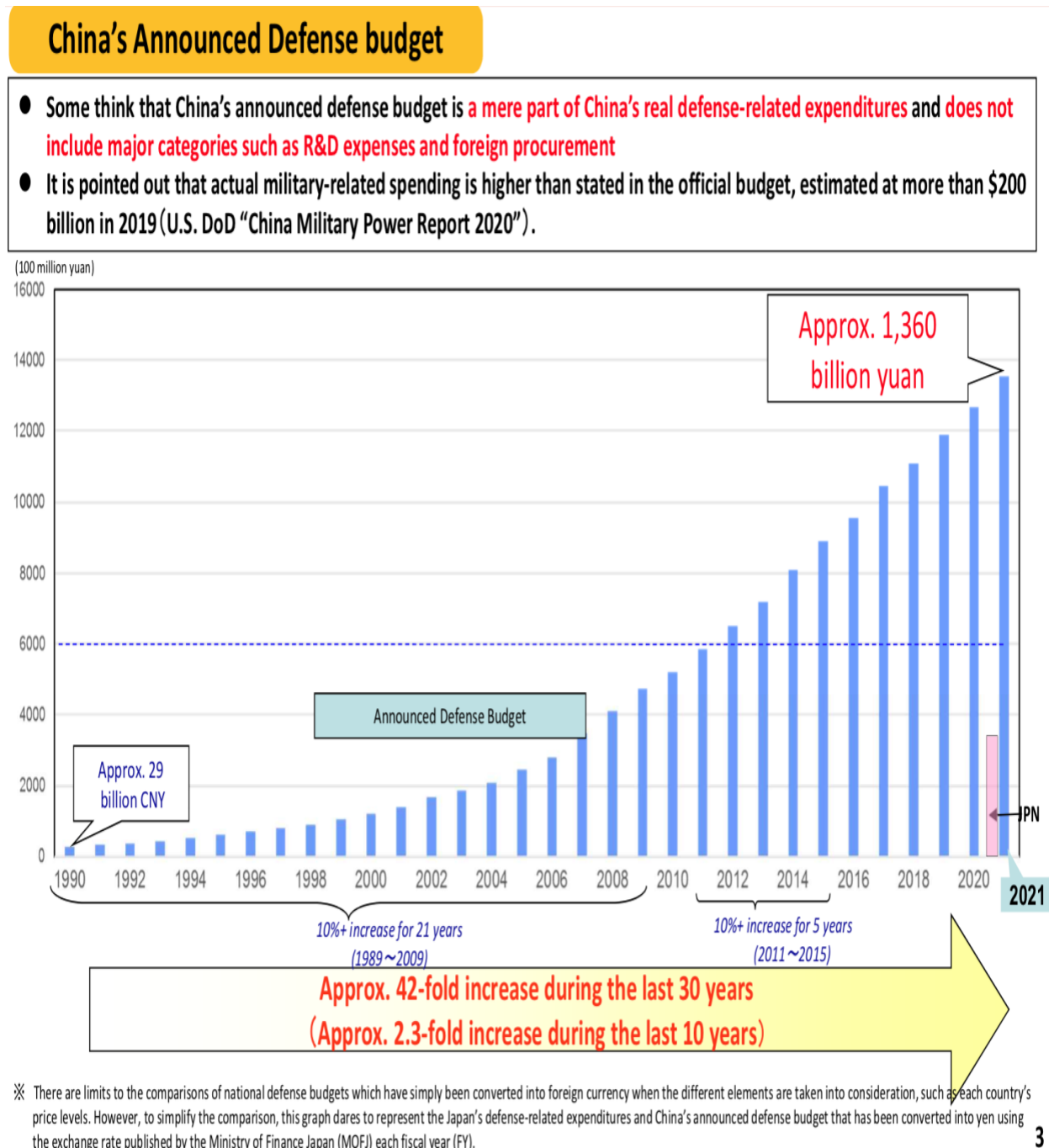
**Source:** Felix Richter, “China Is the World's Manufacturing Superpower,” May 4, 2021, Statista, <https://cdn.statcdn.com/Infographic/images/normal/20858.jpeg>; and John F. Sargent Jr., “Global Research and Development Expenditures: Fact Sheet,” *Congressional Research Service*, R44283, April 29, 2020.

**Figure Seven – Part Four: Comparative U.S., Other NATO, Chinese, and Russian Defense Spending: 1990-2020**



**Source:** Adapted from Caitlin Campbell, *China Primer: The People's Liberation Army (PLA)*, Congressional Research Service, January 5, 2021, <https://crsreports.congress.gov/product/pdf/IF/IF11719/4>.

**Figure Seven – Part Five: Japanese MoD Estimate of Rise in Chinese Defense Spending**



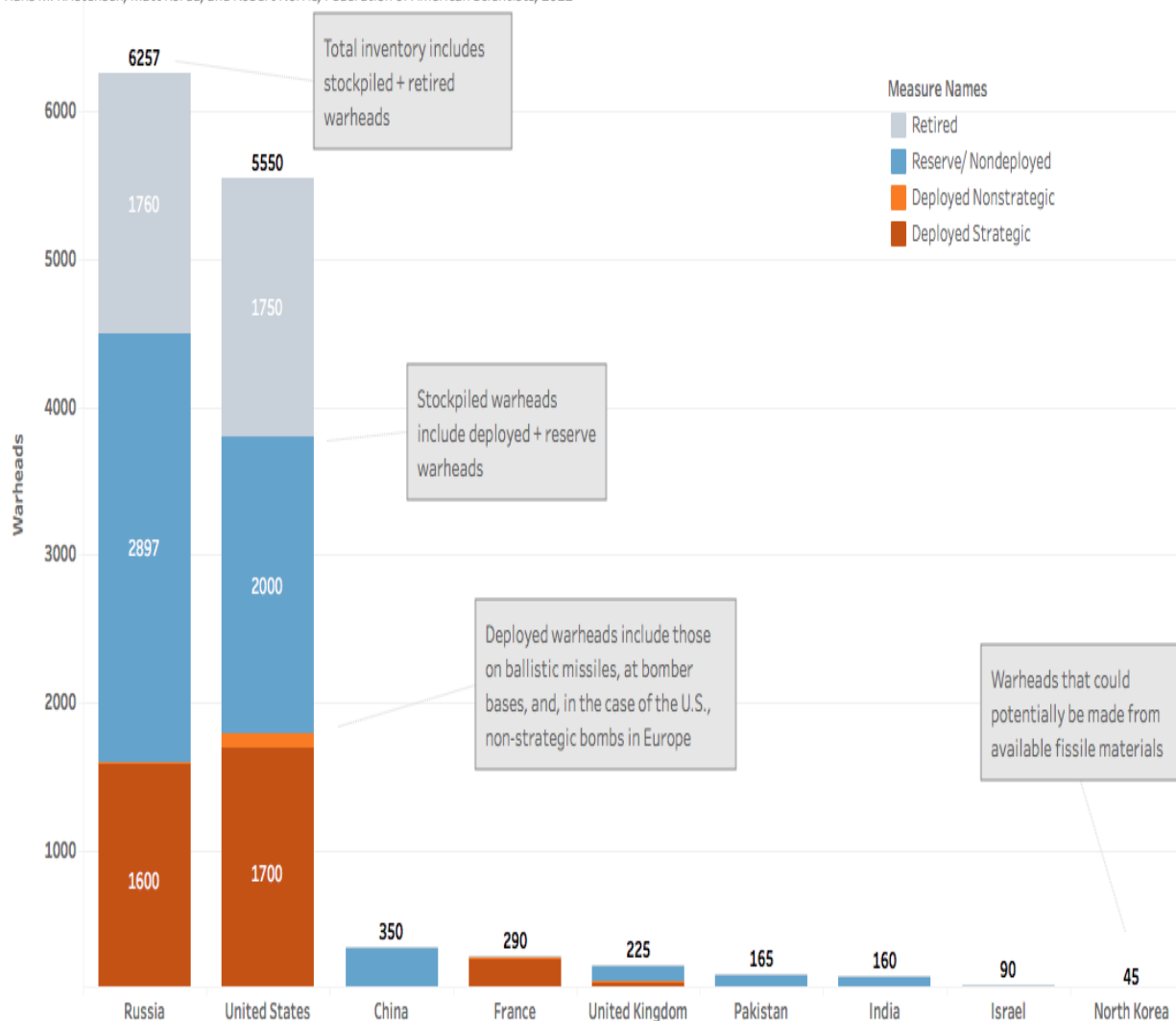
**Source:** Japanese Ministry of Defense, September 2021, [https://www.mod.go.jp/en/d\\_act/sec\\_env/pdf/ch\\_d-act\\_a\\_e\\_210906.pdf](https://www.mod.go.jp/en/d_act/sec_env/pdf/ch_d-act_a_e_210906.pdf).

**Figure Seven – Part Six: Inventories of Nuclear Warheads in Chinese, Russian, U.S., European, and Other Nuclear Forces in 2021**

**Estimated Global Nuclear Warhead Inventories, 2021**

Last updated: 2 August 2021

Hans M. Kristensen, Matt Korda, and Robert Norris, Federation of American Scientists, 2021

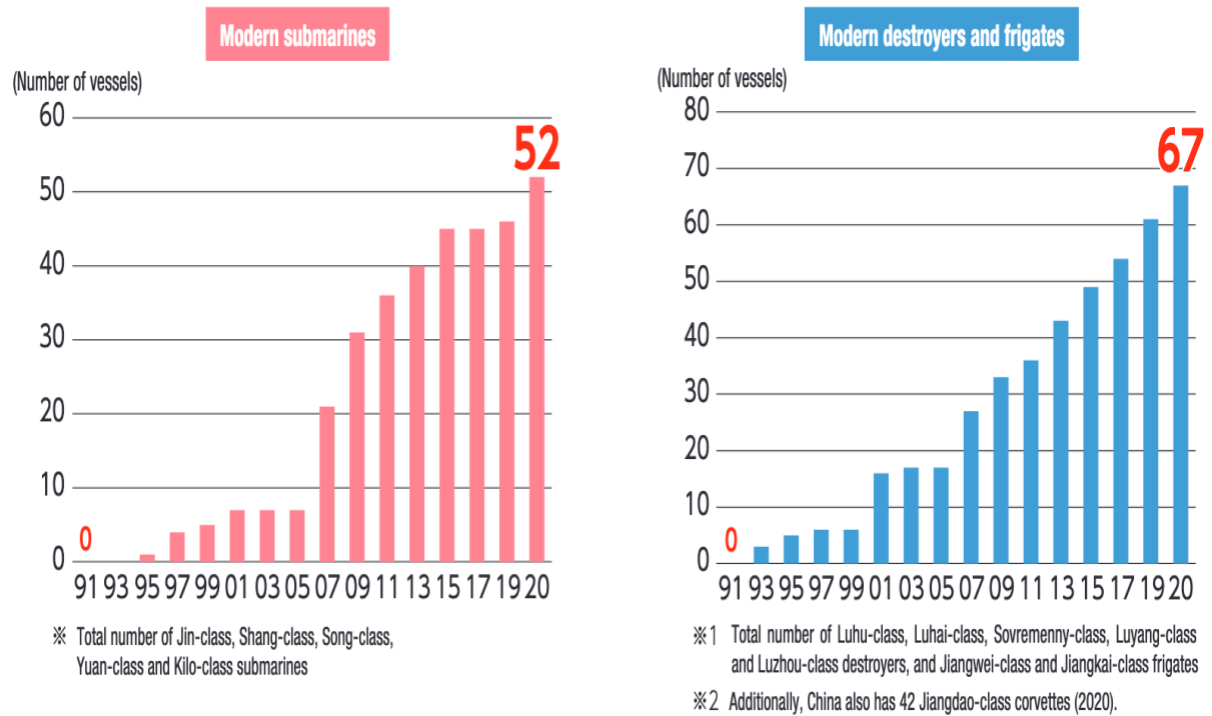


**Note:** This does not reflect discovery of construction of two new major ICBM launch clusters with 230 silos in Yumen and Hami China in September 2021, Projected Rise in Chinese MIRVing and Dual Capable Missile Systems, and Possible Russian and U.S. Deployment of New Nuclear and Dual Capable Systems in Higher Numbers.

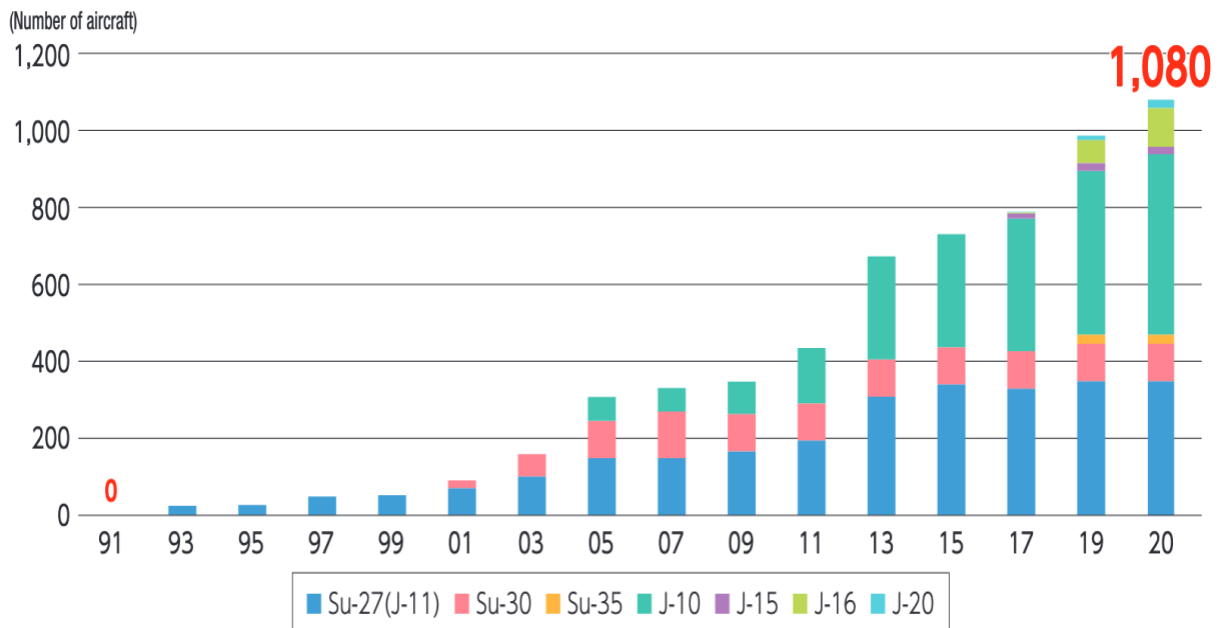
**Source:** Adapted from Hans M. Kristensen and Matt Korda, "Status of World Nuclear Forces," <https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces>; and China Is Building A Second Nuclear Missile Silo Field, July 26, 2021, <https://fas.org/blogs/security/2021/07/china-is-building-a-second-nuclear-missile-silo-field/>.

**Figure Seven – Part Seven: Japanese MoD Estimate of Rates of Key Aspects of Chinese Military Modernization**

### Key Ships



### Fourth and Fifth Generation Fighters



**Source:** Adapted by authors from Japanese Ministry of Defense, *Defense of Japan*, 2020, p. 67.

### Figure Seven – Part Eight: The Expanding Chinese Naval Threat

#### Estimate Numbers of Chinese and U.S. Navy Battle Force Ships, 2020-2040

Figures for Chinese ships are from U.S. navy, reflecting data as of October 2020

Ship type	2020	2025	2030	2040	2040 change from 2020
Ballistic missile submarines	4	6	8	10	+6
Nuclear-powered attack submarines	6	10	14	16	+10
Diesel attack submarines	47	47	46	46	-1
Aircraft carriers	2	3	5	6	+4
Cruisers and destroyers	41	52	60	80	+39
Frigates and corvettes	102	120	135	140	+38
LHA-type amphibious assault ships	0	4	4	6	+6
LPD-type amphibious ships	7	10	14	14	+7
LST-type amphibious tank landing ships	30	24	24	15	-15
<b>TOTAL of types shown above</b>	<b>239</b>	<b>276</b>	<b>310</b>	<b>333</b>	<b>+94</b>
<b>TOTAL number of U.S. Navy battle force ships</b>	<b>297</b>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>

Source: For Chinese navy ships: U.S. Navy data provided to CRS by Navy Office of Legislative Affairs, reflecting data as of October 26, 2020.

Notes: "n/a" means not available.

#### Rising Numbers of Numbers of Chinese Ships by Type 2000-2020

(Figures for Chinese ships taken from annual DOD reports on military and security developments involving China)

Year of DOD report	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020 change from 2005
Ballistic missile submarines	1	1	1	1	2	2	2	2	3	3	4	4	4	4	4	4	+3
Nuclear-powered attack submarines	6	5	5	5	6	6	5	5	5	5	5	5	5	5	6	6	0
Diesel attack submarines	51	50	53	54	54	54	49	48	49	51	53	57	54	47	50	46	-5
Aircraft carriers	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	+2
Cruisers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	+1
Destroyers	21	25	25	29	27	25	26	26	23	24	21	23	31	28	33	32	+11
Frigates	43	45	47	45	48	49	53	53	52	49	52	52	56	51	54	49	+6
Corvettes	0	0	0	0	0	0	0	0	0	8	15	23	23	28	42	49	+49
Missile-armed coastal patrol craft	51	45	41	45	70	85	86	86	85	85	86	86	88	86	86	86	+35
Amphibious ships: LSTs and LPDs	20	25	25	26	27	27	27	28	29	29	29	30	34	33	37	37	+17
Amphibious ships: LSMs	23	25	25	28	28	28	28	23	26	28	28	22	21	23	22	21	-2
<b>Total of types above (does not include other types, such as auxiliary and support ships)</b>	<b>216</b>	<b>221</b>	<b>222</b>	<b>233</b>	<b>262</b>	<b>276</b>	<b>276</b>	<b>271</b>	<b>273</b>	<b>283</b>	<b>294</b>	<b>303</b>	<b>317</b>	<b>306</b>	<b>335</b>	<b>333</b>	<b>+117</b>
China Coast Guard ships	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	185	240	248	255	<i>n/a</i>
<b>Total U.S. Navy battle force ships (which includes auxiliary and support ships but excludes patrol craft)</b>	<b>291</b>	<b>282</b>	<b>281</b>	<b>279</b>	<b>282</b>	<b>285</b>	<b>288</b>	<b>284</b>	<b>287</b>	<b>285</b>	<b>289</b>	<b>271</b>	<b>275</b>	<b>279</b>	<b>286</b>	<b>296</b>	<b>+5</b>
<b>Total U.S. Navy battle force ships compared to above total for certain Chinese ship types</b>	<b>+75</b>	<b>+61</b>	<b>+59</b>	<b>+46</b>	<b>+20</b>	<b>+9</b>	<b>+12</b>	<b>+13</b>	<b>+14</b>	<b>+2</b>	<b>-5</b>	<b>-32</b>	<b>-42</b>	<b>-27</b>	<b>-49</b>	<b>-37</b>	<b>-112</b>

Source: Adapted from: *China Naval Modernization: Implications for U.S. Navy Capabilities*, Congressional Research Service, RL33153, September 9, 2021, pp. 8, 10.

## **NATO and Cooperation in Dealing with Both China and Russia**

The practical problem is how the U.S. and Europe should work together to find the right balance in meeting the challenge from both China and Russia, discuss the relative levels of effort the U.S. and Europe should assign to each and both superpowers, and focus on the additional threats posed by out-of-area challenges like terrorism and extremism. This must, to a large extent, be the subject of regular diplomacy. The economic and civil dimensions of competition with Russia and China are already as serious as the military dimensions, and what might be called “white area” competition or “warfare” must be addressed through civil means.

NATO is, however, the best potential forum for assessing, and reacting to, the need to balance the relative commitment to dealing with the military of Russia and China as well as from other outside threats. Trying to shape the most effective approach to Russia while taking thirty different approaches to China almost ensures a failure to find the right balance and execute the right compromises and changes.

Making a common effort to address both Russia and China as a key part of NATO annual planning, intelligence, and net assessment efforts can do much to avoid mutual confusion and tension over the need to change. It can provide a forum for realistic analysis and dialogue, and it can help share information on an “Atlantic” basis.



## Appendix One: NATO Estimate of 2021 Defense Spending by Country

(in \$ Current Millions)

	2014	2015	2016	2017	2018	2019	2020e	2021e
Current prices and exchange rates								
Albania	178	132	131	145	176	200	188	239
Belgium	5,200	4,204	4,258	4,441	4,845	4,761	5,427	6,503
Bulgaria	747	633	671	724	962	2,159	1,075	1,253
Canada	18,172	18,689	17,708	23,700	22,399	22,572	23,595	26,523
Croatia*	1,064	883	837	924	966	1,002	1,031	1,846
Czech Republic	1,975	1,921	1,866	2,259	2,750	2,910	3,201	4,013
Denmark	4,057	3,364	3,593	3,780	4,559	4,557	4,979	5,522
Estonia	514	463	497	541	615	637	719	787
France	52,022	43,496	44,209	46,133	50,507	49,710	52,727	58,729
Germany	46,176	39,833	41,606	45,470	49,772	52,549	58,902	64,785
Greece	5,234	4,520	4,637	4,752	5,388	4,843	5,019	8,014
Hungary	1,210	1,132	1,289	1,708	1,615	2,050	2,770	2,907
Italy	24,487	19,576	22,382	23,902	25,641	23,559	26,071	29,763
Latvia**	294	282	403	485	710	692	743	851
Lithuania**	428	471	636	817	1,057	1,094	1,176	1,278
Luxembourg	253	250	236	326	356	386	406	474
Montenegro	69	57	62	65	75	74	83	97
Netherlands	10,349	8,673	9,112	9,643	11,172	12,092	13,125	14,378
North Macedonia	124	105	104	101	120	146	154	219
Norway	7,722	6,142	6,431	6,850	7,544	7,536	7,272	8,292
Poland**	10,107	10,588	9,397	9,940	11,857	11,824	13,590	13,369
Portugal	3,007	2,645	2,616	2,738	3,249	3,299	3,306	3,975
Romania**	2,691	2,581	2,645	3,643	4,359	4,608	5,051	5,785
Slovak Republic	999	987	1,004	1,056	1,298	1,802	2,050	2,043
Slovenia	487	401	449	477	547	572	568	760
Spain	12,634	11,096	9,975	11,889	13,200	12,630	12,828	14,875
Turkey	13,577	11,953	12,644	12,971	14,168	14,089	13,396	13,057
United Kingdom	65,692	59,505	56,362	55,719	60,380	59,399	61,925	72,765
United States	653,942	641,253	656,059	642,933	672,255	730,149	784,952	811,140
<b>NATO Europe and Canada</b>	<b>289,275</b>	<b>254,423</b>	<b>255,595</b>	<b>275,100</b>	<b>300,167</b>	<b>301,608</b>	<b>321,376</b>	<b>363,100</b>
<b>NATO Total</b>	<b>943,217</b>	<b>895,676</b>	<b>911,654</b>	<b>918,033</b>	<b>972,422</b>	<b>1,031,757</b>	<b>1,106,328</b>	<b>1,174,240</b>

Notes: Figures for 2020 and 2021 are estimates. The NATO Europe and Canada and NATO Total aggregates from 2017 onwards include Montenegro, which became an Ally on 5

June 2017, and from 2020 onwards include North Macedonia, which became an Ally on 27 March 2020.

\* Year 2021: estimated average derived from the range reported.

\*\* These Allies have national laws or political agreements which call for 2% of GDP to be spent on defence annually, consequently future estimates are expected to change

accordingly. For past years Allies defence spending was based on the then available GDP data and Allies may, therefore, have met the 2% guideline when using those figures. (In

2018, Lithuania met 2% using November 2018 OECD figures.)

**Source:** NATO, *Defence Expenditure of NATO Countries (2014-2021)*, COMMUNIQUE PR/CP(2021)094, June 11, 2021.

---

<sup>1</sup> Reuters, *Macron says European defense autonomy and NATO membership are compatible*, June 18, 2021, <https://www.reuters.com/world/europe/macron-says-european-defense-autonomy-nato-membership-are-compatible-2021-06-18/>.

<sup>2</sup> Reuters, *Macron says European defense autonomy and NATO membership are compatible*, June 18, 2021, <https://www.reuters.com/world/europe/macron-says-european-defense-autonomy-nato-membership-are-compatible-2021-06-18/>.

<sup>3</sup> NATO, *Defence Expenditure of NATO Countries (2014-2021)*, COMMUNIQUE PR/CP(2021)094, June 11, 2021.

<sup>4</sup> NATO, *Defence Expenditure of NATO Countries (2014-2021)*, COMMUNIQUE, PR/CP(2021)094, June 11, 2021.

<sup>5</sup> For one such estimate, see Michael Kofman and Richard Connolly, “Why Russian Military Expenditure is Much Higher than Commonly Understood (As is China’s),” *War On the Rocks*, December 16, 2019, <https://warontherocks.com/2019/12/why-russian-military-expenditure-is-much-higher-than-commonly-understood-as-is-chinas/>.

<sup>6</sup> For a quick open source summary see *NATO 2030*, NATO fact sheet, [www.nato.int › pdf › 2106-factsheet-nato2030-en](http://www.nato.int/pdf/2106-factsheet-nato2030-en).

<sup>7</sup> IISS, *Military Balance, 1991-1992*, pp. 26-27.

<sup>8</sup> IISS, *Military Balance, 2015*, pp. 52-54.

<sup>9</sup> IISS, *Military Balance, 2015*, pp. 60-62.