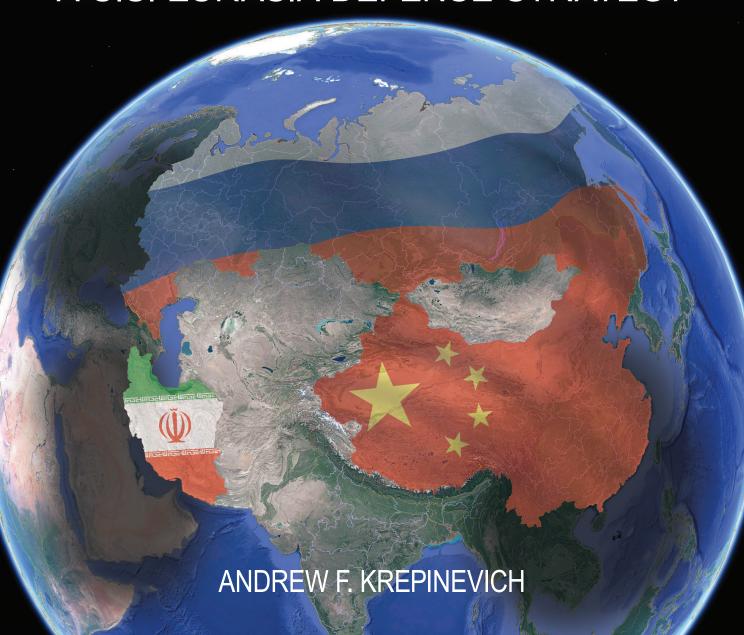


# PRESERVING THE BALANCE

A U.S. EURASIA DEFENSE STRATEGY



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ANDREW F. KREPINEVICH



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#### ABOUT THE AUTHOR

Andrew F. Krepinevich is a distinguished senior fellow at the Center for Strategic and Budgetary Assessments (CSBA). Prior to this he served as CSBA's president. He assumed this position when he founded CSBA in 1993, serving until March of 2016. This was preceded by a 21-year career in the U.S. Army. Dr. Krepinevich has also served as a member of the National Defense Panel, the Defense Science Board Task Force on Joint Experimentation, the Joint Forces Command Advisory Board, the Army Special Operations Command Advisory Panel and the Defense Policy Board. He currently serves as chairman of the Chief of Naval Operations' Executive Panel, and on the Advisory Council of Business Executives for National Security. Dr. Krepinevich has lectured before a wide range of professional and academic audiences, and has served as a consultant on military affairs for many senior government officials, including several secretaries of defense, the CIA's National Intelligence Council, and all four military services. He has testified frequently before Congress. A graduate of West Point, Dr. Krepinevich holds an M.P.A. and Ph.D. from Harvard University. He has taught on the faculties of West Point, George Mason University, Johns Hopkins University's School of Advanced International Studies, and Georgetown University.

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# **Executive Summary**

This paper provides a U.S. defense strategy for Eurasia whose purpose is to sustain the unprecedented era of security and prosperity for the United States and like-minded nations that emerged following the Cold War. Toward this end, the strategy focuses on the long-standing U.S. interest in preventing the rise of a hegemonic power on the Eurasian landmass capable of dominating its human, technical and material resources. If a single power came to dominate either Europe or Asia, it would possess substantially greater manpower, economic and technical capacity—and thus greater military potential—than the United States. Such a development would represent a major threat to U.S. national security.

With this core interest in mind, the strategy presented here calls for major changes in the U.S. defense posture. These changes include shifting to more of a forward defense posture; according top priority, in deed as well as word, to the Western Pacific Theater; taking on greater risk in the European and Middle East theaters than has been the case since the Cold War's end; developing a competency in the ability to compete based on time; establishing new concepts of operation and a different division of labor between the United States and its allies; and last, but far from least, according high priority to the social dimension of strategy, to include developing and advancing persuasive strategic narratives to the American people, the citizens of allies and prospective strategic partners, and the revisionist powers' populations.

## **Refocus on the Balance of Power**

Today the United States finds itself at a strategic inflection point. Its longstanding security interests along Eurasia's periphery are being challenged by revisionist powers—in this case, China, Russia, and Iran—that seek to overturn the international order in the Western Pacific, Europe, and the Middle East, respectively, through coercion, subversion or other means outside the rules-based international system. As their military capability grows, one cannot rule out their resorting to overt aggression, either by miscalculation or design, to achieve their aims.

This challenge is occurring on a scale not seen since the Cold War, and arguably not experienced over the past century. Of the three revisionist powers, China clearly presents far and

away the greatest long-term threat. The Chinese Communist Party's increasing reliance on nationalism for its legitimacy and China's historical sense of entitlement to regional hegemony make it a revisionist power. Beijing's "China Dream" envisions a "Greater" China that includes not only Taiwan but also most of the disputed South China Sea and its islands, and Japan's Senkaku Islands. If China makes good on its territorial ambitions (and especially if this results in fracturing the U.S.—Japan alliance), China will almost certainly achieve hegemony in East Asia and the Western Pacific.

Russia under Putinism is focused on reestablishing itself as a great power, in part by restoring Moscow's spheres of influence over former Soviet republics that include three sovereign states now members of the North Atlantic Treaty Organization (NATO). Despite mounting economic difficulties at home, Moscow followed its forcible annexation of Crimea by supporting pro-Russian separatists in eastern Ukraine; deploying forces to the Middle East in support of Iran's Syrian client regime; pursuing efforts to intimidate NATO frontline states in Eastern Europe; harassing U.S. and allied air and naval forces operating in international waters; and violating the terms of the 1987 Intermediate-Range Nuclear Forces Treaty.

Yet Russia is poorly positioned to engage in a protracted competition with the United States. Its economy is roughly only one-tenth and its population half that of America's, and the gap in both cases is widening. This suggests that although Russia is clearly a revisionist power, as a threat it may be approaching its high-water mark. Over time it could evolve into a lesser threat or even a status quo power seeking primarily to defend what it has, rather retake than what it has lost. If so, Russia could become a U.S. security partner.

The challenge posed by China and Russia to U.S. security interests along the Eurasian periphery is compounded by the threat of radical Islamism, in both its Shi'a and Sunni manifestations. Iran's leaders seek to establish Iran as the Middle East's dominant state by isolating their principal Sunni Arab rivals, undermining Sunni Arab rule in states with predominant Shi'a populations, solidifying Iran's influence in Lebanon and Syria, and winning U.S. acquiescence in its efforts to become a nuclear threshold state.

The Sunni strain of radical Islamism also pursues ambitious goals. The Islamic State of Iraq and Syria (ISIS), for example, seeks to reestablish the Caliphate and evict all non-Sunni Muslim elements from the Islamic world. Its ultimate aim is to subject the entire world to the will of Allah, by force if necessary, as called for in its followers' interpretation of the Qur'an.

#### A Threat Growing in Scale

Viewed individually (China) and collectively (China, Russia, Iran), the revisionist powers' economic might relative to the United States is substantially greater than any power or group of powers America has faced over the past century. Viewed in terms of gross domestic product (GDP) based on contemporary currency exchange rates, China alone poses a far greater relative economic challenge to the United States than did Soviet Russia, Imperial Japan or Nazi Germany. China's GDP is roughly 60 percent that of the United States, or at least half again as

much as that of America's principal rivals over the past century. Moreover, China's growth rate continues to surpass that of the United States, and by a substantial margin. While traditional U.S. European allies remain among the world's great economic powers, their investments in defense have withered to the point where they barely meet NATO minimum standards, or in most cases fall far short of meeting them at all.

Moreover, the low economic entry barriers to some emerging forms of military competition, such as cyber warfare, and perhaps biological warfare as well, are likely to increase further the scale of the challenges confronting the United States.

### **Threats Shifting in Form**

The challenges confronting the United States are also shifting in form from those presented by Soviet Russia or, more recently, minor hostile states and radical Islamist terrorist groups. Over the first decade or so following the Cold War the United States enjoyed large advantages in many key military competitions relative to the revisionist powers. In recent years, however, these U.S advantages have diminished, in some cases significantly. Importantly, the revisionist powers are challenging U.S. military dominance by developing capabilities that avoid the American military's strengths while exploiting its weaknesses. The United States is losing its quarter-century near-monopoly in precision warfare as the revisionist powers develop and field anti-access/area-denial (A2/AD) systems and capabilities that focus, not on power projection, but on denying U.S. forces access to the Eurasian periphery. This phenomenon is most pronounced in the Western Pacific, with China the pacing threat.

The U.S. military has lost its nuclear monopoly over countries in the developing world, specifically in South Asia (India and Pakistan) and the Western Pacific (North Korea). There is increasing risk that proliferation will spread to the Middle East.

The proliferation of advanced military capabilities, combined with the low entry barriers to competing at a high level in several emerging warfare areas (such as in cyber and biological warfare) has produced a "democratization of destruction" that finds even small groups with the potential to inflict damage far exceeding what comparably sized groups were able to do a generation ago. As evidenced by the Second Lebanon War and recent operations conducted by Russia's "Little Green Men," the distinction between the lethality of conventional and irregular forces is becoming less profound. The "blurring" occurring between conventional and irregular warfare is matched by the progressively narrowing "firebreak" between conventional and nuclear warfare, as precision-guided weaponry and cyber payloads become more capable of substituting for nuclear weapons under certain conditions, and as nuclear powers (such as Russia) design low-yield nuclear weapons to offset their vulnerability to advanced conventional warfare. The military competition is also shifting in the sense that it is becoming more intense in relatively new warfare domains, to include space, cyberspace, and the seabed.

The rapid pace of change in the character of warfare shows no signs of slowing anytime soon. Technology continues advancing along a broad front, with artificial intelligence (AI), big data, the biological and human behavioral sciences, directed energy, and robotics, alone or in combination, having the potential to produce dramatic shifts not only in the conduct of military operations but also in the military balance as well.

Therefore, the United States will require not only a larger military than currently planned but also *a significantly different kind of military* to preserve a stable, favorable balance of power to achieve its security objectives at an acceptable level of risk. Toward this end, the U.S. military's challenge will be to exploit existing sources of advantage while developing new ones oriented on competing effectively as the character of warfare continues to change.

#### The Means at Hand

Despite the decline in its relative position in key areas relating to the military competition, the fundamental U.S. situation remains strong. The U.S. economy is likely to remain the world's largest over this paper's 20-year planning horizon. Its dynamic free-market economy enables the "creative destruction" necessary for healthy long-term economic growth. When combined with the economies of its major allies, the democratic great powers' economic capacity—at least as measured by GDP—far exceeds that of the revisionist powers. The United States also possesses a large and technically literate manpower pool. Its defense industrial base, although shrunken, remains the world's finest.

Yet, as the challenges to U.S. security are increasing, funding for defense has been reduced. This action is unprecedented since the United States became an active global power three-quarters of a century ago. A key reason for this state of affairs is the American people's unwillingness to put their country's fiscal house in order. This stems largely from a failure to restrain spending and boost revenues. U.S. debt is growing at a rapid rate. Simply covering the interest payments on the debt cost \$233 billion in fiscal year (FY) 2015. Left unaddressed, this will increase by over 250 percent—to \$830 billion—by the middle of the next decade.

Further compounding the U.S. fiscal challenge, both the Social Security and Medicare trust funds are being depleted and are projected to be exhausted in the early 2030s. If these estimates hold, significant cuts in benefits would be required or increased taxes would need to be imposed to offset or reduce the decline in benefits—or some combination thereof.

These fiscal challenges can be resolved—if the American people are willing to cover these expenditures through spending cuts and/or a significant boost in taxes—or if economic growth were sufficiently robust to increase government revenues more rapidly than the cost of its spending. At present, however, none of these conditions obtains.

The trend toward fiscal insolvency risks putting the United States on a path to social instability, pitting young against old, rich against poor, and workers against those on public assistance. Given these circumstances, absent the emergence of a clear, existential threat to the United States—or U.S. leaders that are willing and able to make the case for fiscal probity and a strong national defense—it will prove increasingly difficult to win public support for

restoring the country's defense effort to Cold War spending levels of greater than 6 percent of GDP—or even the level of over 4 percent supported in the decade following the 9/11 attacks. Consequently, while the strategy proposed here assumes an end to the Budget Control Act ("sequestration") limits, it does not assume anything beyond modest increases in resources for defense. It would be imprudent for those crafting a Eurasian defense strategy to assume the kind of surge in spending that major challenges to U.S. security produced in the past. Yet an unwillingness to improve the country's defenses during a period of rising threats risks being "penny wise and pound foolish," failing to meet the danger before it grows and requires a far greater effort to offset.

As sobering as the U.S. position is, the position of America's great power allies is even worse. While the CBO's estimate of U.S. defense funding falling to 2.6 percent of the country's GDP by the mid-2020s is worrisome, America's principal NATO allies are struggling to invest much more than half of that share in defense. Japan remains stuck on a ceiling of 1 percent of its GDP for defense.

## The Strategy

The strategy achieves the desired ends with the resources projected to be made available, at an acceptable level of risk. To accomplish this, the strategy assigns priority among the three revisionist powers and three military theaters of operation to China and the Western Pacific Theater of Operations (WPTO). The reasons for this are several, and they are compelling. They are informed by key planning factors such as relative military potential, strategic depth, and strategic risk.

#### Military Potential

Neither Russia nor Iran has anything remotely approaching China's economic or military potential. Nor is either likely to develop anything comparable to China's potential over the next several decades. Although Russia has a more formidable nuclear arsenal than China, should they choose to do so, the Chinese could field nuclear forces that would match or exceed those of the United States and Russia under the terms of the new START agreement.

Importantly, the WPTO is the only theater where U.S. allies and partners do not enjoy an advantage over the principal revisionist power in economic and military potential. In the European Theater, both in terms of economic scale, technical sophistication and manpower America's NATO allies' assets far exceed those of Russia. Similarly, the loose collection of strange bedfellows in the Middle East that includes Egypt, Israel, Kuwait, Saudi Arabia and the UAE enjoys similar advantages relative to Iran. Simply put, America's allies and partners in both the European and Middle East theaters of operation are fully capable of creating and sustaining a favorable military balance with minimal direct U.S. support—should they choose to do so.

#### Strategic Depth

Strategic depth (or lack thereof) is an important factor in the military competition along the Eurasian periphery. For those that enjoy strategic depth, a strategy relying on defense in depth (or a "layered" defense) becomes possible, as does the option of trading space to gain time so as to achieve a more advantageous position (such as gaining time for mobilizing forces or inducing a powerful state to enter the war as an ally).

The United States lacks strategic depth in the Western Pacific. This, along with other key factors, requires the United States to adopt a forward defense posture in that theater. On the other hand, the United States enjoys great strategic depth in Europe, providing a greater opportunity to recover from initial setbacks. The United States can deploy reinforcements in the alliance's large "rear area" in relative safety. In the Middle East, Iran and the radical Sunni Islamist groups present far less of a military threat than do China or Russia.

#### Geostrategic Risk

While it should plan to avoid such a situation, in extremis the United States and its allies could lose all of Eastern Europe to Russia and still prevent it from dominating the Continent. Even if Iran came to dominate much of the Middle East, the United States would still possess far greater economic and military potential than a latter-day Persian–Islamic Empire. The same cannot be said, however, with respect to the Western Pacific, the only theater in which a great power U.S. ally, Japan, is a frontline state. Were Japan to be subjugated or, more likely, "Finlandized" by China, the military balance in the Western Pacific would shift decisively in China's favor. The result would very likely be catastrophic for the U.S. position.

Therefore, the strategy accords priority to the Western Pacific as by far the principal focus of U.S. defense efforts. Given the considerations outlined above, the U.S. military should adopt a forward defense posture in the Western Pacific, while emphasizing expeditionary postures in both Europe (its second priority), and the Middle East (its third priority).

These priorities should, however, be viewed in a manner similar to those in the U.S. World War II strategy of "Germany First." Although the defeat of Germany was indeed the highest priority, the war in the Pacific was hardly ignored. Similarly, the relative allocation of forces among the three theaters in the event of simultaneous acts of aggression will depend on the specific circumstances encountered at the time.

#### The Western Pacific Theater Posture

Japan is fully capable of assuming the lead for its own defense and, by extension, the defense of the northern sector of the first island chain (FIC). Over time U.S. forces should be gradually introduced to the Western Pacific, to include forward-deployed rotations to supplement Japan's Self-Defense Force within the context of the Archipelagic Defense operational concept.

The United States should assume primary responsibility for the southern sector of the FIC, to include defending its ally, the Philippines, and providing assistance to Republic of China (Taiwan), where it has a long-term security commitment. Australia could provide forces for the southern sector as well. Frontline states (the Philippines, Taiwan, and Vietnam) should be assisted in creating resistance forces capable of conducting advanced irregular warfare operations to raise the cost of Chinese aggression and delay their ability to consolidate their gains and expand their A2/AD zones.

#### Theater Operational Reserve

Japanese air and naval forces, along with its newly formed mobile army units, could serve as an operational reserve in the northern sector. U.S. air and naval forces, including the U.S. Marine Corps, could function in a similar role along the entire FIC. If necessary, American and Japanese operational reserve forces could support U.S. Marine Corps and selected U.S. Army (Special Forces, Ranger, Airborne, and Air Assault) forces positioned along the WPTO "rim" in conducting counter-offensive operations. These forces must be prepared to act promptly to recover lost territory before enemy forces can establish A2/AD defenses in newly occupied areas.

Although located in South Asia, India could emerge as a key ally or security partner of the United States through its ability to influence the WPTO military balance indirectly by diverting substantial Chinese resources away from areas opposite the FIC.

#### The European Theater of Operations Posture

The European Theater of Operations (ETO) is accorded second priority in the Eurasian defense strategy. The defense posture in the ETO calls for the United States (and hopefully major West European NATO allies) to take the lead in building the East European frontline states' capability to address Russian acts of low-level aggression while serving as a deterrent against overt Russian aggression. The United States should support the efforts of its East European NATO allies to field A2/AD capabilities to deter and, if need be, defeat overt Russian aggression. In the event of general war, NATO can exploit its strategic depth, enabling forward forces to trade space for time (if necessary) until reinforced by U.S. and West European expeditionary forces. Once Russian A2/AD forces are sufficiently reduced, operations can be undertaken to recapture lost territory.

Given the demands for U.S. forces in the other two Eurasian theaters (especially the Western Pacific) and the prospect of declining resources for defense, the United States European posture is limited to deploying modest air and ground forces to Eastern Europe, supplemented by pre-positioned equipment and logistics stocks.

#### Theater Operational Reserve

Absent a significantly greater effort on the part of its NATO allies or a major, sustained increase in its defense resources, the U.S. forces available to form an operational reserve are modest. This is by necessity, not design. Strategy is about setting priorities and allocating risk.

Given projected defense funding, expeditionary U.S. forces based in the continental United States (CONUS) should be sufficient to address a major contingency in the European *or* the Middle East theaters of operations but *not both* simultaneously.

U.S. reinforcements must also be capable of operating effectively in an A2/AD environment. Like their forward-deployed Army counterparts in the Western Pacific, reinforcing Army units should emphasize cross-domain operations: air defense, missile defense, and long-range rocket artillery. *Unlike* Army forward-deployed forces along the FIC in the Western Pacific, however, these ground forces would also need to maneuver to seize and hold territory. Assuming Russian A2/AD forces are effective, U.S. ground forces may have to operate far more dispersed than in the past, placing a premium on resilient communications and light mobile units armed with guided-rockets, artillery, mortars, and missiles (G-RAMM) munitions, as well as heavy mechanized forces, aviation elements, and cross-domain capabilities. In brief, we are talking about a new kind of field army.

#### Middle East Theater of Operations Posture

Given Iran's limited conventional force military potential and its relatively modest ability to prevent the deployment of U.S. forces into the region, the Middle East Theater of Operations (METO) is accorded third priority in the U.S. Eurasian defense strategy.

Importantly, Israel's ability to dominate Iran in the conventional and nuclear competition over the near- to mid-term, along with the forces of Turkey and Sunni Arab states like Saudi Arabia and the United Arab Emirates should be sufficient to discourage Iran from undertaking overt acts of aggression. The principal immediate challenge from Iran (and its proxies) and radical Sunni Islamist groups comes in the form of advanced irregular warfare. Thus, the United States needs to accord priority in the near term to supporting the efforts of local security partners to defeat enemies waging this form of war

Given these considerations, the U.S. military effort in the Middle East Theater of Operations emphasizes modest forward-deployed training and advisory forces to support partner states' efforts to suppress radical Sunni Islamist groups and counter Iranian moves to establish regional dominance. Additionally, direct support over what is currently provided to partner states and non-state groups (such as the Kurds) can be made available in the form of U.S. Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) assets, air strikes, and Special Operations Forces engaged in combat (direct action) and combat support missions.

#### Theater Operational Reserve

Should a large-scale threat to U.S. interests arise, American and allied forces can be augmented by elements of U.S. expeditionary forces positioned outside the METO. These forces must be prepared, in conjunction with host nation and allied forces, to conduct operations to secure major energy extraction, production and transportation facilities along the southern Persian Gulf littoral, as well as the shipping lanes through the Strait of Hormuz.

## Counter-Offensive/Forcible-Entry Forces and the Strategic Reserve

As with its expeditionary forces, U.S. forces conducting counter-offensive/forcible-entry operations would likely be sufficient to address either a Western Pacific (such as in the Philippines) or a Middle East (such as along the Persian Gulf's northern shores) contingency, but not both simultaneously.

U.S. conventional global strike forces—to include global C4ISR assets; long-range precision strike; cyber strike force packages; and theater air and missile defenses—constitute a *strategic reserve* that can be deployed with relative speed to any of the three theaters of operation. In addition to acting as a deterrent force in all three theaters, the strategic reserve can be employed to blunt aggression, buying time until American and allied operational reserves or expeditionary forces can deploy while degrading enemy A2/AD capabilities. The strategic reserve can also be employed in support of U.S. counter-offensive forces at the decisive point.

# The Military-Technical Competition and Search for the "Next Big Thing"

Any Eurasian defense strategy designed for a protracted rivalry must take into account the long-term military-technical competition between the United States and the revisionist powers. Developing new sources of competitive advantage that will enable America's armed forces to sustain favorable balances in the three Eurasian theaters of operation and in critical functional areas (such as strategic warfare) is central to this competition. Moreover, in this highly uncertain and dynamic security environment creating capability options mitigates the risk that the U.S. military could place some wrong "big bets" when it comes to equipping its forces.

Technology trends also indicate one or more new "big things" will emerge to alter the character of warfare substantially. History suggests that those militaries that identify these new forms of warfare will enjoy a major advantage over their rivals. Thus there is great incentive to be the first (or among the first) to identify and exploit the "next big thing" (or "things") in warfare.

What might the U.S. military do to identify the next breakthroughs in warfare? Before proceeding to make major systems choices in its defense program, the U.S. military should undertake a sustained field experimentation campaign with the objective of identifying how best to exploit emerging technologies within the context of new operational concepts oriented on dominating key military competitions.

#### **Time-Based Competition**

But the military must do more than identify major new sources of advantage. It must exploit them as well, and do so more rapidly than its rivals.

The United States is losing its long-term advantage in a number of key military-related technologies. This is partially unavoidable, as many emerging technologies with the potential to boost military effectiveness, such as AI, big data, directed energy, genetic engineering, additive manufacturing, and robotics are being driven primarily by the commercial sector. Since these technologies are available to all who have the means to obtain them, competitive advantage will accrue to those militaries that can not only identify how best to exploit them but that can do so *more quickly* than their rivals. Thus, time is becoming an increasingly valuable resource.

Unfortunately, the current U.S. acquisition system does not excel at either speed or agility. Rather than leveraging time to its advantage, the United States Defense Department squanders this precious resource, often taking over a decade or more to field new systems and capabilities. Consequently, the United States is taking far longer than its adversaries to field the new capabilities essential to remain competitive in a world of rapid technological change. If its military is to maintain its long-standing advantage in the quality of its equipment, the U.S. defense establishment will need to develop ways to compress radically the time it takes to get new equipment into the field.

#### The Battle of the Narrative

Last but perhaps most important of all is the strategy's social dimension. To set the nation on the path toward restoring its fiscal foundation and providing the resources necessary to preserve its security, America's national security leaders must educate the American people on the threats to the country's vital security interests and economic well-being. Second, they must present a strategy that can address these threats. Third, a case must be made for the resources necessary to execute the strategy and for the American people to accept the sacrifices that will be required to liberate these resources. This implies a long overdue plan to reverse the country's rapidly declining financial standing. Fourth, given that the United States is likely in a long-term competition with the revisionist powers, this effort must be capable of being sustained over time. The United States should support the efforts of ally governments to make a similar case to their peoples. Finally, a strategy to challenge the revisionist powers' message to their publics must be developed and implemented.

#### CHAPTER 1

# Introduction

This paper provides a U.S. defense strategy for Eurasia whose purpose is to sustain the unprecedented era of security and prosperity for the United States and like-minded nations that emerged following the Cold War. Toward this end, the strategy focuses on the long-standing U.S. interest in preventing the rise of a hegemonic power along the periphery of the Eurasian landmass capable of dominating its human, technical, and material resources.

# **An Enduring Strategic Interest**

Three times during the twentieth century the United States became actively involved in the affairs of Europe, to include two major wars, in order to prevent or counter the emergence of a dominant power on the Continent. In 1917, the United States entered World War I to defeat the central powers, led by Imperial Germany. A quarter of a century later the United States again found itself at war in Europe, this time against Nazi Germany and Fascist Italy. Reflecting on U.S. involvement in two world wars in less than a quarter century, Nicholas Spykman presciently noted at the time:

The United States must recognize once again, and permanently, that the power constellation in Europe and Asia is of everlasting concern to her, both in time of war and in time of peace . . . .

Twice in one generation we have come to the aid of Great Britain in order that the small offshore island might not have to face a single gigantic military state in control of the opposite coast of the mainland. If the balance of power in the Far East is to be preserved in the future as well as in the present, the United States will have to adopt a similar protective policy toward Japan. . . . . <sup>1</sup>

No sooner had the Allies defeated the Axis powers than the United States was faced with the specter of Soviet Russia's bid to establish a dominant position in Europe by exploiting

Nicholas J. Spykman, America's Strategy in World Politics: The United States and the Balance of Power (New York: Harcourt, Brace and Company, 1942), p. 470. (Reprint, New Brunswick, NJ: Transaction Publishers, 2008).

the exhausted West European powers' weakness. Confronted with this challenge, George Kennan echoed Spykman, arguing that "Any world balance of power means first and foremost a balance on the Eurasian landmass." A little more than three years after its victory in World War II these views found their way into official policy, as the Truman administration's NSC 20/4 document declared "Soviet domination of the potential power of Eurasia, whether achieved by armed aggression or by political and subversive means, would be strategically and politically unacceptable to the United States." Shortly after, the United States agreed to form NATO that, for 40 years of the Cold War, preserved peace and underwrote prosperity in Europe.

During the last century, the United States also waged a major war in the Western Pacific to arrest what it saw as an attempt by a great power to dominate East Asia. In World War II, U.S. forces, along with those of its allies, defeated Imperial Japan's attempt to establish hegemony in the form of a Greater East Asia Co-Prosperity Sphere. After the war, Washington formed bilateral alliances with Australia, Japan, New Zealand, the Philippines, and South Korea to discourage expansion in the region by Soviet Russia or Communist China.<sup>4</sup>

More recently, with the growing importance of Middle East oil to the global economy and U.S. prosperity, the United States has sought to preclude the emergence of a dominant power in that region, particularly one aligned with any great aspiring hegemonic power in Europe or Asia. The so-called Carter Doctrine, proclaimed by President Jimmy Carter in 1980, declared that "An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault will be repelled by any means necessary, including military force." 5

- Hal Brands, What Good is Grand Strategy? (Ithaca, NY: Cornell University Press, 2014), p. 27.
- 3 "U.S. Objectives with Respect to the USSR to Counter Soviet Threats to U.S. Security," (NSC 20/4, November 23, 1948) in Foreign Relations of the United States, vol. 1 (Washington, D.C.: Government Printing Office, Department of State, 1948), pp. 663–669, available at https://www.mtholyoke.edu/acad/intrel/coldwar/nsc20-4.htm. President Harry Truman's secretary of state, Dean Acheson, declared, "The loss of Western Europe or of important parts of Asia or the Middle East would result in a transfer of potential from West to East which . . . might have the gravest consequences in the long run." President Truman himself warned, ". . . Soviet command of the manpower of the free nations of Europe and Asia would confront us with military forces which we could never hope to equal." Quoted in Aaron L. Friedberg, In the Shadow of the Garrison State (Princeton, NJ: Princeton University Press, 2000), p. 39.
- In a flourish of diplomatic activity referred to by some as "Pactomania," the United States made alliances with Australia and New Zealand—the "ANZUS" pact—in 1951 and established "SEATO"—the Southeast Asia Treaty Organization—with Australia, France, Great Britain, New Zealand, Pakistan, the Philippines, and Thailand in September 1954. (SEATO was disbanded in 1977.) In 1984 New Zealand declared itself a Nuclear Free Zone and refused to allow U.S. nuclear-powered submarines to make port calls. In 1986 the United States suspended its treaty obligations to New Zealand. Department of State, Office of the Historian, "Southeast Asia Treaty Organization (SEATO), 1954," available at https://history.state.gov/milestones/1953-1960/seato; and Department of State, Office of the Historian, "The Australia, New Zealand and United States Security Treaty (ANZUS Treaty), 1951," available at https://history.state.gov/milestones/1945-1952/anzus.
- Jimmy Carter, "The State of the Union Address Delivered Before a Joint Session of the Congress," January 23, 1980, available online by Gerhard Peters and John T. Woolley, *The American Presidency Project*, available at http://www.presidency.ucsb.edu/ws/?pid=33079.

After a half century of revisionist power challenges along the Eurasian periphery, following Soviet Russia's collapse in 1991 the United States enjoyed a quarter century respite that is now coming to an end. Today U.S. and allied security interests are once again being challenged by revisionist powers—China, Russia, and Iran. They are seeking to overturn the international order, especially in the Western Pacific, Europe, and the Middle East, respectively, through coercion, subversion, or other means outside the rules-based international system. As their military capability grows in relation to that of the United States, one cannot rule out their resorting to overt aggression, either by miscalculation or design, to achieve their aims.

# An Enduring U.S. Objective?

How should the United States respond to current challenges to the balance of power along the Eurasian periphery? The past is not necessarily prologue. One should not assume that vital U.S. interests would be compromised if the revisionist powers achieved their aims. Just as important, the United States should not assume that it has the means to prevent these powers from shifting the military balance in their favor. Thus, we begin by addressing the issue of whether the long-standing U.S. interest in preventing the rise of a hegemonic power along the Eurasian periphery remains valid. The conclusion here is that it does, although with Asia displacing Europe as the principal focus of U.S. defense strategy.

Despite the many changes that have occurred over the quarter century since the Cold War's end, the periphery of Eurasian landmass still contains or borders upon most of the world's principal military and economic powers. The long arc of countries that stretches from Western Europe through the Middle East, Persian Gulf, and South Asia, and then on to the Far East is also a major provider of raw materials, access to which is essential for U.S. economic well-being in particular and global prosperity in general. The regions at either end of the "Eurasian Arc"—Western Europe, and China and the states along its periphery—also possess greater industrial and manpower resources than any other large landmass. By virtue of their position, they also provide ready access to the world's major oceans and commerce routes.

If a single power came to dominate either Europe or Asia, it would possess substantially greater manpower, economic and technical capacity—and thus greater military potential—than the United States. Such a development would represent a major threat to U.S. national security. Even if such a hegemon's intentions were benign, were they to become hostile the effect would be the same. Therefore, if possible, the emergence of such a power must be

Over the past half century, the United States has grown increasingly reliant on trade as a component (or percentage) of its GDP and, by extension, its prosperity. Standing at less than 10 percent in 1960, the figure grew to nearly 20 percent by the Cold War's end and today stands at nearly 30 percent. "Trade (% of GDP)," World Development Indicators, The World Bank, as of 2016, available at http://data.worldbank.org/indicator/NE.TRD.GNFS.ZS?locations=US.

resisted. Consequently, preserving a favorable military balance<sup>7</sup> of power along the Eurasian periphery to discourage would-be hegemons from achieving their aims through aggression or coercion remains, as it has for a century, a fundamental U.S. strategic objective. If successful, preserving a favorable military balance keeps threats as distant from the U.S. homeland as possible, thereby enabling the United States to maintain and exploit its strategic depth, an important source of competitive advantage.

# A Regional/Theater Focus

The revisionist powers—China, Russia, and Iran—are each located in one of the three regions or military theaters of operation in question—the WPTO, ETO, METO, respectively. That said, each is capable of influencing the military balance outside its geographic region—through out-of-area deployments, long-range weapons, and the support of proxies. Nevertheless, at present Russia's focus is overwhelmingly on Europe, China's on the Western Pacific, and Iran's on the Middle East. Moreover, there are significant other revisionist forces operating in these regions, such as North Korea in the Western Pacific and various Sunni radical Islamist groups in the Middle East that cannot be discounted in U.S. defense planning. Similarly, most U.S. existing and prospective allies and partners along the Eurasian periphery are also primarily focused on their part of the world. They are generally disinclined to deploy forces beyond their region or, if they do so, only on a very modest scale. Only the United States can deploy and sustain large forces to nearly any point on the globe. What Spykman concluded three-quarters of a century ago in favor of a regional approach holds true today:

The regional approach remains, however, the best way to deal with political problems. The quest for universality that characterized the League of Nations only led to weakness. The Scandinavian states were not interested in the boundary and power problems of the La Plata region, and the Latin American states were not interested in the questions that confronted Eastern Europe.<sup>8</sup>

With these factors in mind, the strategy advanced here employs a regional, as well as a Eurasian, focus. In so doing it establishes priorities among regions as well as among military capabilities and forces. Yet U.S. actions in one region may affect the actions of both rivals and friendly states in other regions. Moreover, U.S. resources are limited. Thus the strategy, as well as the military posture and forces that emerge from it, must also be integrated across regions.

As employed in this report, the term "favorable military balance" is defined as having sufficient military capability to deter an adversary from acts of coercion or aggression (or to defeat the adversary if deterrence fails). The Office of the Secretary of Defense (OSD), Office of Net Assessment, has undertaken traditionally military balance assessments. For an example of the methodology one might employ in undertaking a net assessment of the military balance in a particular region, see Andrew F. Krepinevich and Barry D. Watts, *The Last Warrior* (New York: Basic Books, 2015), pp. 179–189.

<sup>8</sup> Spykman, America's Strategy in World Politics, p. 471.

## **Temporal Factors**

The competition between the United States and the principal revisionist powers shows no sign of ending anytime soon. It would be imprudent to assume otherwise. Thus, the strategy presented here assumes the United States is engaged in a long-term competition with each of the revisionist powers. It is, therefore, important to consider not only how the United States can improve its immediate position but also what actions it must undertake now with an eye toward maintaining—or establishing—a favorable defense posture over the long term. Consequently, the strategy employs a planning horizon of 10–20 years. This provides sufficient time within which the United States can effect major needed changes in its military posture, forces, and equipment.

The strategy seeks to achieve its objectives without resorting to war. But as there is no guarantee this will prove out, the United States must be prepared to wage war to preserve its vital interests—including a protracted war against another major power, or powers.

Nor does this strategy preclude cooperating with any of the revisionist powers in ways that advantage the United States; indeed, it assumes such cooperation is both possible and desirable. Given current trends, some of which would be difficult to alter, it seems likely that China will remain the principal challenge to U.S. security interests, and its predominance will only increase with time in line with its growing economic might and military muscle. The threat from Russia, on the other hand, may well diminish over time, owing to a range of factors. Moscow may also come to see China and radical Islamism as greater threats to its security over time than the United States, leaving open the possibility of its becoming an American security partner. Iran, by far the least threatening of the revisionist powers, appears likely to continue on its current path, to include its pursuit of nuclear weapons. Should Iran become a nuclear-armed state, the modest threat it currently poses to U.S. security interests in the Middle East could increase significantly. The problems posed by radical Islamist movements and non-state proxy groups seem likely to persist over time, with occasional "spikes" in intensity.

The strategy proposed in this paper takes these trends in the threat environment into account. They are reflected in changes in the U.S. force posture over time. Of course, if—or more likely when—these trends shift, the strategy will need to be adjusted accordingly. Given the relatively high level of uncertainty involved, the strategy attempts to maximize the options available to U.S. defense strategists over the planning horizon.

# What this Strategy is Not

The strategy presented here is *not* a national security strategy, in that it does not address in detail the role non-military factors, such as diplomacy, alliances, and economics play in

strategy. It is a defense strategy. A defense strategy encompasses more than a purely military strategy in that it includes factors such as security assistance, the role of ally and partner militaries, and matters relating to positional advantage, such as the military's global basing posture.

Nor is it a *global* defense strategy. The focus is on defense strategy along the Eurasian periphery. That said, the strategy does consider the need to protect the U.S. homeland and the global commons as key factors essential to enabling a defense of the Eurasian periphery. It does not, however, address the nuclear balance in detail, nor concern itself directly with security challenges in other regions such as Africa and Latin America.

While the discussion identifies key sources of potential U.S. military advantage, to include desirable capabilities, it does not provide detailed operational concepts laying out how U.S. forces would be employed across a range of contingencies. That said, there is a general discussion pertaining to point-of-departure operational concepts as well as recommendations as to how the U.S. military might develop and refine such concepts.

Nor should the strategy be confused with the U.S. defense program. The strategy does not provide a detailed prescription for what systems and capabilities to buy, or in what quantities, over a specific time frame in support of a specific force size and structure. Rather, the strategy describes first-order defense priorities that will, in turn, inform specific defense posture/program decisions. The strategy is, however, presented in much greater detail than many of the most notable national security strategies, such as NSC 68, NSC 162/2, or NSDD 32, or many of the unclassified national military strategies.

# Strategy and How it is Used in this Assessment

A strategy is a coherent set of actions that respond effectively to an important challenge or opportunity.<sup>12</sup> In this way, a strategy clearly states how the resources available to meet or overcome the challenge are to be employed to enable the strategy's success. With respect to establishing and maintaining a favorable position in a military competition, strategy neces-

- One example of a U.S. defense strategy can be found at OSD, *The National Defense Strategy of the United States of America* (Washington, DC: DoD, March 2005). It is 20 pages in length. The strategy is lacking in a number of ways. For example, it states that, at some point, the Defense Department will "address the spectrum of strategic challenges by setting priorities among competing capabilities" and "will consider the full range of risks . . . and manage explicit tradeoffs across the Department." The 2008 version—OSD, *The National Defense Strategy of the United States of America* (Washington, DC: DoD, June 2008)—is 23 pages in length. The strategy is more a statement of goals the United States would like to achieve, such as "preventing adversaries from acquiring or using weapons of mass destruction" than a realistic plan of action describing how these objectives will be accomplished. As in the 2005 strategy, key issues like setting priorities among objectives and allocating risk are left as tasks to be accomplished at some future point in time.
- 10 This paper does provide a first cut at a defense program whose priorities are consistent with the strategy.
- 11 NSC 68 spanned 66 pages; NSC 162/2 spanned 27 pages; and NSDD 32 spanned a mere 8 pages. NSC 20/4, cited above, is less than 6 pages in length.
- 12 Richard Rumelt, Good Strategy, Bad Strategy (New York: Crown Business, 2011), p. 6.

sarily involves "identifying or creating *asymmetric* advantages that can be exploited to help achieve one's ultimate objectives despite resource and other constraints... the opposing efforts of adversaries or competitors and the inherent unpredictability of strategic outcomes."<sup>13</sup>

If the competitive environment is not defined in a way that addresses the questions of "What are we trying to do?" and "What kind of opposition do we face?" then it is difficult to assess the quality of the strategy. To the extent possible, a strategy must also take into account the dynamic character of the military competition, and how its key characteristics—the competitive environment—may change over time.

Thus a good strategy contains three parts. The first is a *diagnosis* that identifies the key challenges to U.S. security and their character. As Charles Hill notes, "The first principle of grand strategy is that one must understand what is going on in the world. The question, 'What's happening?' is more than a cheerful greeting."<sup>14</sup> For our purposes, we will examine both key contemporary challenges and those that may arise over the next decade or so. This is the subject of Chapters 2 and 3, which provide an overview of the competitors and the character of the competition.

The second part of a strategy provides an *overall approach* addressing the challenges identified in the diagnosis, to include identifying key sources of competitive advantage and weakness, both existing and prospective. It also identifies the resources likely to be available over the planning horizon to support the strategy. These factors are discussed in Chapter 4. The third part presents a set of integrated actions designed to support the overall approach. This is the strategy that is set forth in Chapter 5.

<sup>13</sup> Andrew F. Krepinevich and Barry D. Watts, Regaining Strategic Competence (Washington, DC: Center for Strategic and Budgetary Assessments, 2009), p. 19.

<sup>14</sup> Charles Hill, Grand Strategies (New Haven, CT: Yale University Press, 2010), p. 178.

#### **CHAPTER 2**

# Background on the Current Situation

# Why Change the Current U.S. Defense Strategy?

At present, the United States does not have a formal national security strategy, as it appears that no classified national security strategy was formulated during the Obama administration. The importance of a classified strategy cannot be discounted. For example, to employ a sports analogy, a football team's game plan, or strategy, is a closely guarded secret for obvious reasons. For similar reasons the most notable U.S. national security strategies, such as NSC 68, NSC 162/2 and NSDD 32, were highly classified documents not made available to the public for decades after they were drafted. Similarly, in the corporate world strategies can be among a firm's most closely guarded secrets.

The Obama administration published unclassified national security strategies in 2010 and 2015. According to members of the National Security Council staff with whom the author has engaged, neither of these public documents had a corresponding classified version. The Defense Department also produced an unclassified public document, Sustaining U.S. Global Leadership: Priorities for 21st Century Defense, in January 2012. The report sets objectives and priorities but does not provide a strategy that addresses how these priorities are to be achieved. There appears to be no classified version of this report that addresses this issue.

<sup>&</sup>quot;A Report to the National Security Council by the Executive Secretary on United States Objectives and Programs for National Security," NSC 68, April 14, 1950; "A Report to the National Security Council by the Executive Secretary on Basic National Security Policy," NSC 162/2, October 30, 1953; and "U.S. National Security Strategy," National Security Decision Directive, NSDD 32, May 20, 1982.

Since the end of the Cold War strategy has become a lost art for a succession of U.S. administrations of both political parties.<sup>17</sup> Perhaps this stems from the absence of a major challenge to U.S. security for most of the following two decades, or the major increase in defense spending after the 9/11 attacks, or both. Congress' disappointment in the Pentagon's strategic planning is evident in legislation calling for the Defense Department to abandon its Quadrennial Defense Review (QDR), introduced in the mid-1990s.<sup>18</sup> Simply put, the question is not whether the United States changes its defense strategy, but rather whether or not in the absence of a clearly defined strategy it crafts such a strategy that can be sustained over a protracted period of time.

# **Collective Security or a Balance of Power?**

More broadly speaking, U.S. strategic planning suffers from a fundamental misdiagnosis of the security environment. For much of the post-Cold War era, the United States has pursued efforts at collective security in the laudable hope that common ground might be found among the world's major powers so that global peace and stability might be established for the benefit of all nations. Collective security assumes that peace will be preserved through global consensus. It also assumes that international conflict is the product of "clouded thinking," not a clash of interests among states and groups. It is rooted in the presumption that all major powers have the same interest in resisting specific violations of the international order, up to and including acts of aggression.<sup>19</sup>

Anthony H. Cordesman, Reforming Defense Decisionmaking: Taking Responsibility and Making Meaningful Plans (Washington, DC: Center for Strategic and International Studies, March 2009), available at https://www.csis.org/analysis/reforming-defense-decisionmaking. See also Krepinevich and Watts, Regaining Strategic Competence.

Cordesman warned the military officers at the National Defense University:

If God merely dislikes you, you may end up helping your service chief or the Chairman of the Joint Chiefs draft one of those vague, anodyne strategy documents that is all concepts and no plans or execution. If God is totally indifferent, you will end up working on our national strategy and simply be irrelevant.

Quite seriously, I have no idea where we lost sight of the fact that policy planning, concepts, and good intentions are not a strategy. The secretary used to issue an annual posture statement that justified the budget request in terms of detailed force plans, procurement plans, and at least some tangible measures of progress. The chairman issued his own statement and views—sometimes explaining and sometimes dissenting. For a while, there were even crude attempts at an annual net assessment.

Now, strategy seems to at best be the conceptual underpinning of our defense posture and at worst a series of phrases and buzzwords that often seem to contribute nothing.

- National Defense Authorization Act for Fiscal Year 2017, H. Rept. 114-537, Part 1, 114<sup>th</sup> Cong. (2015–2016), pp. 203–206. This report of the House Armed Services Committee calls for "comprehensive reform of the defense and military strategies of the Department of Defense," to include establishing a Commission on National Defense Strategy. It expresses disappointment in the Department's QDR efforts and calls for a classified National Military Strategy. The Congress established the QDR mandate for the Defense Department, directing it to "undertake a wide-ranging review of strategy, programs, and resources. Specifically, the QDR is expected to delineate a national defense strategy consistent with the most recent National Security Strategy by defining force structure, modernization plans, and a budget plan allowing the military to successfully execute the full range of missions within that strategy." Jeffrey D. Brake, *Quadrennial Defense Review (QDR): Background, Process, and Issues* (Washington, DC: Congressional Research Service, June 21, 2001), p. CRS-1, available at http://www.globalsecurity.org/military/library/report/crs/RS20771.pdf.
- 19 Henry Kissinger, *Diplomacy* (New York: Simon & Schuster, 1994), pp. 51–53, 221–223, 246–250.

American efforts to promote collective security are not a new phenomenon. They have become a recurring theme in U.S. foreign policy. They began with President Woodrow Wilson and "Wilsonian" policies, which were reflected in part through the League of Nations being established following World War I. Nor was support for collective security limited to the United States. Enthusiasm among the Western democracies for collective security as a means of preserving the peace continued for nearly two decades.<sup>20</sup> It reached its apex with the 1928 Kellogg–Briand Pact that found many countries, including the future Axis powers, Germany, Italy and Japan, renouncing war as a means of resolving disputes between nations. Yet war began in the Far East only 3 years later and a world war less than a decade after that.

With victory on the horizon in World War II, President Franklin Roosevelt hoped that peace, and U.S. interests, might be preserved through collective security. This time it took the form of the United Nations and assumed that sufficient fundamental common security interests existed among the "Four Policemen"—Great Britain, Nationalist China, Soviet Russia, and the United States—to enable them to cooperate in maintaining peace and order. The U.S. flirtation with collective security passed quickly. Soviet dictator Josef Stalin moved aggressively to subjugate Eastern Europe and expand Soviet Russia's influence into Western Europe, Greece, and Turkey. These actions, along with the fall of Nationalist China to the Communists, quickly found the United States focusing on establishing and preserving a favorable balance of power in Europe and the Far East as the best means of preserving its security.

Following the Cold War, the pattern was repeated. The Clinton administration emphasized "Cooperative Security"<sup>21</sup> and "Partnership for Peace"<sup>22</sup> as the basis for preserving the

- It has been argued that much of the enthusiasm expressed by France and Great Britain during this period might more accurately be viewed as efforts at collective defense and appeasement than collective security. It has also been argued that diplomatic initiatives such as the Kellogg-Briand Pact were, in part, an effort to keep the United States engaged, at least indirectly, as part of British and French efforts to create a favorable balance of power in Europe. See, for example, Kissinger, *Diplomacy*, pp. 376–377; and (specifically with regard to the Kellogg-Briand Pact) E. H. Carr, *International Relations Between the Two World Wars*, 1919–1939 (New York: Harper Torchbooks, 1947), pp. 117–119.
- Ashton B. Carter, William J. Perry, and John D. Steinbruner, A New Concept of Cooperative Security (Washington, DC: The Brookings Institution, 1992). This influential monograph, whose authors include two future defense secretaries, argued that following the Cold War a general consensus existed among the world's great powers, led by the United States, on the benefits of the existing international order. The principal challenges to this order were said to be concentrated among small rogue regimes like Iran, Iraq, and North Korea and failed states such as Haiti and Rwanda. In the spirit of collective security, the authors proposed ways in which this asserted consensus could be operationalized in practice.
- "Partnership for Peace" was an attempt by President Bill Clinton beginning in 1994 through NATO to bring Russia and its former East European satellite states into the community of nations as a way to promote peace and stability. The East European states participated, as did Russia, but only after the United States agreed that Moscow would have a role and treatment commensurate with its "special status" as a major European international and nuclear power. William E. Schmidt, "Russia Tells NATO It Is Ready to Join Peace Partnership," New York Times, May 24, 1994, available at http://www.nytimes.com/1994/05/25/world/russia-tells-nato-it-is-ready-to-join-peace-partnership.html. While Russia remains a member of Partnership for Peace, the current state of relations between it and NATO members suggests that the initiative has not succeeded in fulfilling its noble ambitions.

post-Soviet global order, while according priority to what some called a "Mother Theresa"<sup>23</sup> foreign policy. President George W. Bush began his term of office seeking common ground with Russia, declaring he had a sense of Russian president Vladimir Putin's "soul" and found him "trustworthy." This assessment proved very wide of the mark as evidenced, among other things, by Russia's cyber attacks on Estonia and war on Georgia, as well as Putin's repression of democracy and civil liberties in Russia.<sup>24</sup> Most recently President Barack Obama pursued "resetting" relations with one hostile great power, Russia; "engagement" with another revisionist state, China; and encouraged U.S. partners in the Middle East to reach a *modus vivendi* with Iran on the assumption that there exists substantial common ground upon which to build relationships that will secure U.S. interests without needing to engage in balance of power politics.<sup>25</sup> Yet once again, as occurred after the two world wars, the United States finds revisionist powers seeking to exploit opportunities to advance their goals, all of which involve undermining U.S. interests and influence.

To sum up, repeated U.S. efforts at collective security have all failed. They failed because the assumptions that underpin collective security were not realized. The great powers have never had identical interests. Nor have they ever viewed the risks to their security in the same

- Michael Mandelbaum, "Foreign Policy as Social Work," *Foreign Affairs*, January–February 1996. 3 years into the Clinton administration, Mandelbaum argued the United States was pursuing a foreign policy not based on great power politics, but one suited to the "standards of Mother Teresa," a Roman Catholic nun (and saint) known for her work among the poor. Mandelbaum's critique also argued that efforts such as those pursued by the administration in Haiti and Rwanda could not achieve success absent the commitment of far greater resources than the American people would support. Finally, by failing to identify U.S. national interests in traditional balance of power terms, the United States ran the risk of failing to pursue a strategy that would preclude, or at least delay, the rise of great power revisionist rivals. See also Thomas L. Friedman, "Foreign Affairs; The Clinton Gamble," *New York Times*, December 6, 1995, available at http://www.nytimes.com/1995/12/06/opinion/foreign-affairs-the-clinton-gamble.html.
- 24 Caroline Wyatt, "Bush and Putin: Best of Friends," BBC News, June 16, 2001, available at http://news.bbc.co.uk/2/ hi/1392791.stm.
- Less than two months after his inauguration in 2009, President Obama sought to "reset" U.S. relations with Russia on a more positive trajectory. This was followed shortly after by Russia approving U.S. troop and supply flights over its airspace on their way to Afghanistan and the United States dropping plans to build a missile defense shield in Eastern Europe. In 2010 both countries agreed to reduce their strategic nuclear arsenals to 1,550 weapons each and impose economic sanctions against Iran. Since then, however, Russia's annexation of Crimea, invasion of eastern Ukraine, and deployment of forces to the Middle East have led many to conclude the reset effort a failure. In October 2014, Russian Prime Minister Dmitry Medvedev declared that a reset of U.S.-Russian relations was "impossible." Geoff Cutmore and Antonia Matthews, "Russia-U.S. Relations Reset 'Impossible': PM Medvedev," CNBC, October 15, 2014, available at http://www.cnbc. com/2014/10/15/russia-us-relations-reset-impossible-pm-medvedev.html. The administration's policy with respect to China has followed a similar trajectory: initial efforts to engage in collective security were met by a series of worrisome actions by America's putative partner. This has led the administration to pursue a more balanced approach, perhaps best exemplified by its "pivot" to accord higher priority in foreign and defense policy to the Asia-Pacific region. Hillary Clinton, "America's Pacific Century," Foreign Policy, October 11, 2011, available at http://foreignpolicy.com/2011/10/11/americaspacific-century/. Responding to growing concerns among U.S. allies and partners over the shifting military balance in China's favor and perceptions of declining U.S. commitment and credibility, Secretary Clinton responded, "People are also wondering about America's intentions—our willingness to remain engaged and to lead. In Asia, they ask whether we are really there to stay . . . whether we can make-and keep-credible economic and strategic commitments, and whether we can back those commitments with action." Regarding Iran, President Obama has stated, "The competition between the Saudis and the Iranians-which has helped to feed proxy wars and chaos in Syria and Iraq and Yemen-requires us to say to our friends as well as to the Iranians that they need to find an effective way to share the neighborhood and institute some sort of cold peace." Jeffrey Goldberg, "The Obama Doctrine," The Atlantic, April 2016, available at http://www. theatlantic.com/magazine/archive/2016/04/the-obama-doctrine/471525/.

way. Nor has applying the principal of collective security ever defeated any act of great power aggression. Moreover, sanctions applied by the international community in response to acts of aggression or coercion have reflected a "lowest common denominator" approach to the problem. They have never proven to be decisive when needed most—against a threat to the peace posed by a great power.<sup>26</sup>

Collective security has not succeeded when one or more of the great powers reject the status quo. Yet this is the situation the United States now confronts. Three revisionist powers—two of them great powers—reject the current international order and seek to overturn it through coercion and subversion if possible, but perhaps—if circumstances permit—through overt aggression as well. Yet, as Henry Kissinger observed, "It is in the nature of prophets to redouble their efforts, not to abandon them, in the face of recalcitrant reality."

Indeed, despite the "recalcitrant reality" provided by the course of events, the United States has been "doubling down" on its collective security bet. U.S. actions designed to counterbalance revisionist aggressive actions have been overshadowed by efforts at accommodation based on collective security principles. China's ongoing military buildup in the South China Sea has been met with modest U.S. counter-moves in the Philippines and Vietnam, <sup>28</sup> along with episodic freedom of navigation operations in the South China Sea Islands region. Yet the military balance continues shifting in China's favor as it gains positional advantage. <sup>29</sup>

Similarly, the United States has led the way in getting economic sanctions imposed on Russia following its latest act of aggression in Ukraine, while also planning small troop deployments to Eastern Europe. Yet the deployments will not produce a significant shift in the military balance, especially in the Baltic States where a considerable number of Russian nationals reside. In 2014 the United States declared Russia to be in violation of the 1987 Intermediate-Range Nuclear Forces (INF) Treaty. Two years later Washington has apparently not been

<sup>26</sup> Kissinger, Diplomacy, pp. 248–250.

<sup>27</sup> Ibid., p. 248.

<sup>28</sup> The United States has reached an agreement with the Philippines on obtaining access to bases in that country, and Washington has terminated the arms embargo on Vietnam.

<sup>29</sup> The term "positional advantage" as employed in this paper is defined as the ability to exert influence or control over an area of strategic importance. Should China establish control over the South China Sea, it will gain positional advantage in several ways, to include extending its maritime lines of communication to key sources of raw materials, such as oil from the Persian Gulf, while greatly reducing the strategic depth of both the Philippines and Vietnam. Chinese strategic thought is closely tied to the concept of achieving positional advantage, as reflected in the game of Wei Ch'i (often referred to as "Go" in Western cultures). See, for example, Scott A. Boorman, *The Protracted Game: A Wei Ch'i Interpretation of Maoist Revolutionary Strategy* (New York: Oxford University Press, 1969). See also Henry Kissinger, *On China* (New York: Penguin Press, 2011), pp. 23–25; and David Lai, *Learning from the Stones: A Go Approach to Mastering China's Strategic Concept, Shi* (Carlisle, PA: U.S. Army War College Strategic Studies Institute, 2004).

able to bring Russia back into compliance.<sup>30</sup> Like his Chinese counterparts, far from being discouraged by U.S. countervailing initiatives, President Putin has only doubled down on his adventurous foreign policy. In 2015, for the first time since the Cold War, substantial Russian forces were deployed abroad to the Middle East, where they are engaged in operations to keep Syrian dictator Bashar al-Assad in power while supporting Iran's efforts to expand its influence.<sup>31</sup>

In the Middle East, President Obama's declaration that "Assad must go" has gone unfulfilled. Assad crossed the president's "red line" against the use of chemical weapons in March, April, and August 2013.<sup>32</sup> The administration threatened military action but defaulted to an agreement brokered by Russia that would have Syria give up its chemical weapons stocks. Yet three years later Syria retains some of these weapons and has used them.<sup>33</sup> U.S. efforts at finding common ground with Iran and Russia to defeat ISIS have only strengthened their position, and Assad's, at the expense of the United States and the anti-Assad forces it supports.

On a more positive note, the Obama administration appears to have wrung some serious concessions from Iran in the so-called Grand Bargain involving that country's nuclear

- In a letter dated July 28, 2014, President Obama informed Russia's president, Vladimir Putin, that the United States considers Russia in violation of the INF Treaty. The Compliance Report provided by the Obama administration to Congress states only that the violation concerns a ground-launched cruise missile being in breach of the Treaty's range limitations. The 2016 Compliance report (Adherence to and Compliance with Arms Control, Nonproliferation, and
- limitations. The 2016 Compliance report (Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments) finds, "The Russian Federation is in violation of its obligations under the INF Treaty not to possess, produce, or flight-test a ground-launched cruise missile (GLCM) with a range capability of 500 km to 5,500 km, or to possess or produce launchers of such missiles." Amy F. Woolf, Russian Compliance with the Intermediate Range Nuclear Forces (INF) Treaty: Background and Issues for Congress (Washington, DC: Congressional Research Service, April 13, 2016). See also U.S. Department of State, Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments (Washington, DC: U.S. Department of State, April 2016), available at http://www.state.gov/t/avc/rls/rpt/2016/255651.htm.
- 31 Steven Lee Myers and Eric Schmitt, "Russian Military Uses Syria as Proving Ground, and West Takes Notice," *The New York Times*, October 14, 2015, available at http://www.nytimes.com/2015/10/15/world/middleeast/russian-military-uses-syria-as-proving-ground-and-west-takes-notice.html?\_r=0. See also Gustav Gressel, *Russia's Quiet Military Revolution, and What It Means for Europe* (London: European Council on Foreign Relations, October 2015).
- In responding to a question regarding the civil war in Syria, the president stated at a press conference in August 2012 that "I have, at this point, not ordered military engagement in the [Syrian] situation." President Obama went on to say, "We have been very clear to the Assad regime—but also to other players on the ground—that a red line for us is we start seeing a whole bunch of chemical weapons moving around or being utilized. That would change my calculus." From "Remarks by the President to the White House Press Corps," Office of the Press Secretary, August 20, 2012, available at https://www.whitehouse.gov/the-press-office/2012/08/20/remarks-president-white-house-press-corps. See also "Obama Warns Syria Not to Cross 'Red Line'," CNN, August 21, 2012, available at http://www.cnn.com/2012/08/20/world/meast/syria-unrest/.
- Over two years after Syria agreed to turn over its chemical weapons, reports of the Syrian government employing chemical weapons continued to appear. Privately, Obama administration officials acknowledged that not all Syria's chemical weapons were removed, as required by the 2013 agreement. The administration has accused Syria of using industrial chlorine against its own people. Ryan Browne and Elise Labott, "White House Condemns Syria's Chemical Weapons Use," CNN, August 25, 2016, available at http://www.cnn.com/2016/08/25/politics/un-report-chemical-weapons-syria/; Russell Goldman, "Syria's Chemical Weapons Have Been Destroyed. So, Why Do Chlorine Gas Attacks Persist?" New York Times, August 11, 2016, available at http://www.nytimes.com/2016/08/12/world/middleeast/syria-chlorine-gas-attack.html?\_r=0; and Margaret Brennan, "U.S. Probes Reports of Chemical Weapons Use by Assad Regime in Syria," CBS News, December 24, 2015, available at http://www.cbsnews.com/news/united-states-probes-reports-of-chemical-weapons-use-by-bashar-al-assad-regime-in-syria/.

program and the economic sanctions regime imposed on it. Each side gained something by the Joint Comprehensive Plan of Action (JCPOA) agreement.<sup>34</sup> Yet this effort reflects more traditional power politics than the actions of two states with broad common interests. Iran continues supporting the Assad regime in Syria and refuses to condemn its use of chemical weapons. To demonstrate the narrow perspective it takes of the JCPOA, not long after signing the agreement, Iran tested ballistic missiles in defiance of a United Nations resolution prohibiting such tests.

Given the revisionist states' ambitions, it may have been difficult for any U.S. administration to deter them from their aggressive policies. Unfortunately, the Obama administration's recent efforts to counter the revisionist powers' provocative actions have not arrested the ongoing decline in the U.S. position, let alone offset it.

# The Limits of Power: Setting Unrealistic Objectives

In addition to efforts to promote collective security, the "unipolar moment" of the United States has been characterized by a tendency toward setting security objectives that reflect a lack of appreciation for even a superpower's resource limitations, or a sense that strategy involves making choices and setting priorities over what the United States can reasonably accomplish. As the threats to U.S. security have grown, and as its financial standing has diminished, the gap between what it would like to accomplish and what it can accomplish has become increasingly apparent.

Consider, for example, President George W. Bush's 2002 National Security Strategy document. One core objective is to "prevent our enemies from threatening us, our allies, and our friends with weapons of mass destruction." Yet a key, if not *the* key, reason states have nuclear weapons is to deter others—*to threaten them*—with these weapons. Another core objective is to "ignite a new era of global economic growth through free markets and free trade." While no doubt a worthy objective, the last two administrations have not even been able to get the American people to sign up for it, let alone win the support of countries like China that seek to employ economic power for political advantage and skew markets in ways that favor them. <sup>35</sup> Yet another core objective is to "expand the circle of development by opening societies and building the infrastructure of democracy," an aim that proved beyond America's means in Afghanistan, Haiti, and Iraq. <sup>36</sup>

Richard Nephew, "The Grand Bargain: What Iran Conceded in the Nuclear Talks," *The National Interest*, April 17, 2015, available at http://nationalinterest.org/feature/the-grand-bargain-what-iran-conceded-the-nuclear-talks-12653.

There is strong opposition in both major U.S. political parties to expanding free trade, as reflected in their presidential candidates' opposition to the Trans Pacific Partnership during the 2016 election campaign. For a discussion of China's use of economic power for political advantage, see Robert D. Blackwill and Jennifer M. Harris, *War by Other Means* (Cambridge, MA: The Belknap Press, 2016), pp. 93–128.

<sup>36</sup> George W. Bush, The National Security Strategy of the United States of America (Washington, DC: The White House, September 2002), pp. 13–24.

The practice of setting unrealistic strategic goals continues. Witness President Obama's objective to "degrade, and ultimately destroy, ISIL [the Islamic States of Iraq and the Levant] through a comprehensive and sustained counter-terrorism strategy."<sup>37</sup> Thanks in no small measure to the efforts of many countries, principal among them Iran, Russia, and Assad's Syria, ISIL has been "degraded," but signs of its destruction remain elusive. The group continues to control territory in Iraq and Syria, while also maintaining a presence in Algeria, Libya, the Sinai, and Yemen.<sup>38</sup> Persistent efforts spanning well over a decade have yet to destroy another radical Islamist group, al Qaeda. President Obama also repeatedly stated that Iran cannot be allowed to become a nuclear power.<sup>39</sup> Yet the president felt compelled to accept an agreement with Iran that would enable it to become a nuclear "threshold" state.<sup>40</sup>

In summary, the U.S. approach to addressing the principal challenges to its security suffers from several major flaws. One is the absence of a clearly defined defense strategy; another is a fundamental misdiagnosis of the security environment. Still another flaw involves setting unrealistic goals.

## **The Changing Security Environment**

Yet, if the United States had pursued an effective strategy since the Cold War's end, there is no guarantee it would be appropriate for the emerging security environment. Indeed, there are major geopolitical, economic, social, and military-technical changes underway that would render any existing strategy in need of revision. Just as the strategy that defeated the Axis powers in World War II was no longer relevant for the threat posed by a nuclear-armed Soviet Russia, the rise of revisionist powers today requires a rethinking of U.S. strategy as its

- 37 David Hudson, "President Obama: We Will Degrade and Ultimately Destroy ISIL," The White House Blog, September 10, 2014, available at https://www.whitehouse.gov/blog/2014/09/10/president-obama-we-will-degrade-and-ultimately-destroy-isil.
- 38 Bardia Rahmani and Andrea Tanco, ISIS's Growing Caliphate: Profiles of Affiliates (Washington, DC: Woodrow Wilson International Center for Scholars, February 19, 2016), available at https://www.wilsoncenter.org/article/isiss-growing-caliphate-profiles-affiliates.
- 39 A listing of President Obama's statements on preventing Iran from becoming a nuclear power can be found in Jeffrey Goldberg, "Obama's Crystal-Clear Promise to Stop Iran From Getting a Nuclear Weapon," The Atlantic, October 2, 2012, available at http://www.theatlantic.com/international/archive/2012/10/obamas-crystal-clear-promise-to-stop-iran-from-getting-a-nuclear-weapon/262951/.
- According to Guzansky and Dekel, "Although there is no accepted definition of what constitutes a nuclear threshold state, it is commonly thought that control of most of the elements of the nuclear fuel cycle, possession of an advanced scientific-technological infrastructure, a stockpile of fissile material, and the ability to install a nuclear warhead on a suitable weapon platform [such as an aircraft or missile] are the necessary conditions for this status." Yoel Guzansky and Udi Dekel, "Recognizing Iran as a Nuclear Threshold State: Implications for Israel and the Middle East," *Institute for National Security Studies (INSS) Insight* No. 676, March 25, 2015, available at http://www.inss.org.il/index. aspx?id=4538&articleid=9004; and Michael Singh, "Addressing Threats to National Security," *Policy Analysis*, The Washington Institute, January 18, 2016, available at http://www.washingtoninstitute.org/policy-analysis/view/addressing-threats-to-national-security-iran. Some argue that at the time of the agreement Iran had already achieved threshold state status. See Walter Pincus, "Iran is Already a Threshold Nuclear State," *Washington Post*, August 11, 2015, available at https://www.washingtonpost.com/world/national-security/iran-is-already-a-threshold-nuclear-state/2015/08/10/df246040-3d37-11e5-9c2d-ed991d848c48\_story.html.

"unipolar moment" comes to an end.<sup>41</sup> The following sections provide an overview of the character of the challenges posed by hostile powers and groups along the Eurasian periphery and the current U.S. response.

# The Western Pacific

#### China

The Chinese Communist Party (CCP), which has ruled over China for nearly 70 years, assigns top priority to maintaining itself in power. The party's legitimacy rests on two of four potential pillars. One pillar is the vote. Regimes voted into power by their people through free and open elections possess a strong sense of legitimacy. The CCP has denied itself this source of legitimacy. A second pillar is ideology. Regimes, whether elected or not, that the people believe have identified the true path to security and prosperity can experience a high level of legitimacy; however, the CCP's Marxist ideology that once won over large numbers of Chinese is largely discredited.

The CCP's legitimacy rests on the two remaining pillars. One centers on economic growth. Especially in countries where poverty has been the norm for generations, a regime's ability to bring about strong, sustained economic growth can provide a strong source of legitimacy, and it has in China. Beginning in the 1990s China experienced a sustained period of rapid economic growth to become the world's second-largest economy. <sup>42</sup> China now stands as the world's largest trading nation and importer of raw materials. With the growth of its economic might, Beijing now seeks to expand its influence beyond the Western Pacific, as seen in its ambition to resurrect in modern form the "Silk Road" trade route through its "One Belt, One Road" (OBOR) initiative. The goal is for OBOR to provide an economic complement to China's geopolitical and military initiatives. The OBOR project challenges the United States economically, as it seeks to supplant the trans-Atlantic and trans-Pacific trading blocs that have the United States as the focal point of each with a Eurasian block that has China as its hub. <sup>43</sup>

- The term "unipolar moment" stems from an article by Charles Krauthammer in 1990. It has come to refer to the period in which the United States enjoyed a position as the world's leading power with no serious rivals—in effect, a "unipolar" international system. As Krauthammer also noted in his article, "No doubt, multipolarity will come in time." And it has. Charles Krauthammer, "The Unipolar Moment," Foreign Affairs: America and the World, 1990–1991.
- 42 Economic size is defined by GDP as measured by currency exchange rates.
- One Belt, One Road envisions a network of land (One Belt) and sea (One Road) routes forming a Eurasian economic infrastructure. China plans to invest some \$4 trillion to realize its ambitions, or roughly thirty times what the United States invested in the Marshall Plan. See "Our Bulldozers, Our Rules," *The Economist*, July 2, 2016, available at http://www.economist.com/news/china/21701505-chinas-foreign-policy-could-reshape-good-part-world-economy-our-bulldozers-our-rules; and Xie Tao, "Is China's 'Belt and Road' a Strategy?" *The Diplomat*, December 6, 2015, available at http://thediplomat.com/2015/12/is-chinas-belt-and-road-a-strategy/. Further complicating matters, a key economic component of President Obama's pivot to the Asia-Pacific, the Trans-Pacific Partnership, or TPP, is facing growing domestic opposition. The TPP is a trade agreement among twelve nations along the Pacific Rim, including Australia, Canada, Malaysia, New Zealand, Singapore, Vietnam, and the United States. Its goal is to promote trade among the members and, indirectly, to counteract the pull of China's growing economic might and its OBOR initiative. Kevin Granville, "The Trans-Pacific Partnership Trade Accord Explained," *New York Times*, July 26, 2016, available at http://www.nytimes.com/2016/07/27/business/international/the-trans-pacific-partnership-trade-accord-explained.html?\_r=0.

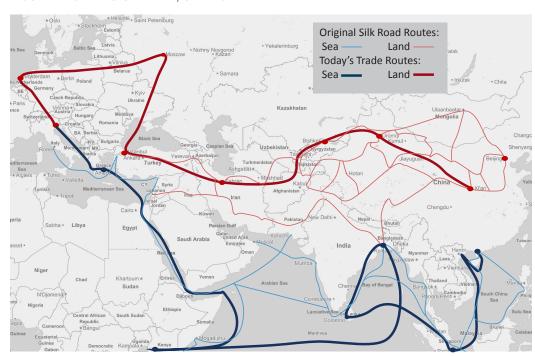


FIGURE 1: CHINA'S ONE BELT, ONE ROAD

But the CCP's reliance on economic growth for its legitimacy may be challenged if the country hits the inevitable "flattening" in the economic growth curve that accompanies a country's transition from an emerging, or recovering, economy to a mature one. There is evidence that this may be occurring in China. The slowdown may be precipitous rather than gradual as the regime reaches the limits of its ability to stimulate economic growth by relying on illegal export subsidies, currency manipulation, low-cost labor, intellectual property theft, and environmental degradation.

Just as worrisome is China's rapid accumulation of debt. Whereas U.S. debt as a percentage of its GDP has (temporarily) stabilized, China's continues to rise rapidly, reaching 249 percent of GDP—assuming one can trust its accounting—as the government continues its efforts to sustain high levels of economic growth. Yet sluggish growth in Europe and the United States has crimped China's export-driven economic model, while cheap labor in South and Southeast Asia threatens to rob Beijing of a key source of competitive advantage. Compounding the problem, China's labor pool began declining around 2012. There are also concerns that speculation in real estate will produce an asset "bubble" that will burst, producing widespread collateral national—and perhaps global—economic damage. Sensing economic weakness,

capital flows out of China have increased dramatically, from a surplus inflow of \$283 billion as recently as 2013 to an outflow of \$676 billion in 2015.<sup>44</sup>

While these trends are disturbing, they do not guarantee a Chinese economic crisis. They do, however, suggest that such a crisis is far from a trivial probability. If it comes, where will the regime place blame? Perhaps it will find scapegoats from within the CCP of whom to make an example. More likely it will appeal to the Chinese people's nationalistic fervor and assign responsibility to foreign nations, the most likely candidates being the United States and Japan.

Regimes lacking support from the other three pillars of legitimacy can attempt to sustain themselves in power by demonstrating their ability, real or perceived, to restore or enhance their people's sense of national pride and honor, or to protect them from their enemies. The CCP has sought to avail itself of this source of legitimacy. Since its victory in its civil war over the Chinese Nationalists in 1949, the Chinese Communists have made it a priority to burnish and in many ways fabricate—their credentials as being responsible for defeating Imperial Japan in World War II, ending China's "century of humiliation" at the hands of the Western powers, and restoring the country's position as a great power. As Aaron Friedberg notes, "Nationalism helps rulers to deflect popular frustrations, mobilize and channel mass support, forge coalitions among disparate groups, and win the backing of those who might otherwise seek their ouster."45 Toward this end, the CCP has persistently worked to rewrite history to show itself in a more favorable light than confirmed by historical fact. Hence the United States is portrayed as the agitator in the region, the country that must be deterred from threatening China's peaceful rise, and a "dangerous hegemon that it must replace." 46 The CCP's most strident nationalist appeals, however, are directed against Japan, which defeated China in the Sino-Japanese War (1894-1895), 47 occupied Manchuria in 1931, and waged a brutal war of aggression against China itself from 1937-1945.

The CCP's determination to reverse the century of humiliation, its growing ability to do so through its growing military and economic power, its increasing reliance on nationalism for its legitimacy, and its historical sense of entitlement to regional hegemony make it a revisionist

- Ruchir Sharma, "How China Fell Off the Miracle Path," New York Times, June 3, 2016, available at http://www.nytimes.com/2016/06/05/opinion/sunday/how-china-fell-off-the-miracle-path.html?\_r=0; Mark Magnier, "China's Manufacturing Gauge Expands at Slower Pace as Stimulus Fades," Wall Street Journal, April 30, 2016, available at http://www.wsj.com/articles/chinas-manufacturing-gauge-expands-at-slower-pace-as-stimulus-fades-1462075124; and Peter Navarro, "China Will Probably Implode," The National Interest, May 7, 2016, available at http://nationalinterest.org/feature/china-will-probably-implode-16088?page=show.
- 45 Aaron L. Friedberg, A Contest for Supremacy (New York: W. W. Norton & Company, 2011), p. 51.
- 46 Jonathan Holslag, Seas of Troubles: China and the New Contest for the Western Pacific, unpublished draft (Brussels Institute of Contemporary China Studies, 2011); Yifu Dong, "China's Clickbait Nationalism," Foreign Policy, July 25, 2015, available at http://foreignpolicy.com/2015/07/25/china-clickbait-nationalism-japan-war/; Friedberg, A Contest for Supremacy, p. 161; and Michael Pillsbury, The Hundred Year Marathon (New York: Henry Holt and Company, 2015), pp. 99–107.
- 47 In defeat, China was compelled by the Treaty of Shimonoseki to cede the island of Taiwan to Japan. Although not included in the treaty's terms, Japan also annexed the uninhabited Senkaku Islands, which Tokyo viewed as part of the agreement regarding Taiwan.

power.<sup>48</sup> Yet stirring the nationalist passions of a people can be akin to mounting the back of a tiger, in that the Party cannot easily compromise on issues it uses to inflame popular passions, for fear of creating a nationalist backlash on itself.<sup>49</sup> As Robert Kaplan notes, the Chinese "are new to modern nationalism rather than sick and tired of it, like the Europeans in the early decades following World War II."<sup>50</sup>

Nor is the behavior of China's leaders a historical aberration; indeed, it is the norm. As Friedberg notes,

As they begin to assert themselves, rising powers usually feel impelled to challenge territorial boundaries, international institutions, and hierarchies of prestige that were put in place when they were still relatively weak. Their leaders and people typically feel that they were left out unfairly when the pie was divided up, and may even believe that because of prior weakness, they were robbed of what ought to be theirs.<sup>51</sup>

- 48 Odd Arne Westad, "In Asia, Ill Will Runs Deep," New York Times, January 6, 2013, available at http://www.nytimes. com/2013/01/07/opinion/why-china-and-japan-cant-get-along.html?\_r=0.
- 49 For those who assert that China's leaders will gradually see the virtue in seizing upon the pillar of democratization—legitimacy through the ballot box—there is no guarantee that, should this unlikely event come to pass, it will enable the regime to abandon the pillar of nationalism. If history is a guide, any Chinese transition from authoritarianism to democracy would increase appeals to nationalism and the likelihood of conflict with others. Friedberg, A Contest for Supremacy, p. 51; and Edward D. Mansfield and Jack Snyder, Electing to Fight: Why Emerging Democracies Go to War (Cambridge, MA: MIT Press, 2005). According to Lee Kuan Yew, however, this is not a problem the world will have to confront:

China is not going to become a liberal democracy; if it did, it would collapse. Of that, I am quite sure, and the Chinese intelligentsia also understands that.... To achieve the modernization of China, her Communist leaders are prepared to try all and every method, except for democracy with one person and one vote in a multiparty system. Their two main reasons are the belief that the Communist Party of China must have a monopoly on power to ensure stability; and their deep fear of instability in a multiparty free-for-all, which would lead to a loss of control by the center over the provinces, with horrendous consequences, like the warlord years of the 1920s and '30s.

Lee Kuan Yew, speech delivered at the World Chinese Entrepreneurs Convention, Singapore, August 10, 1991; and Lee Kuan Yew, "Question and Answer Session," interview at the International Institute for Strategic Studies, London, UK, September 23, 2008. Cited in Graham Allison and Robert Blackwill, eds., with Ali Wyne, Lee Kuan Yew: The Grand Master's Insights on China, the United States, and the World (Cambridge, MA: MIT Press, 2013), pp. 13–14.

- 50 Robert D. Kaplan, Asia's Cauldron: The South China Sea and the End of a Stable Pacific (New York: Random House, 2014), p. 33.
- 51 Friedberg, A Contest for Supremacy, p. 40.

Since the onset of the Industrial Revolution in the late eighteenth century, all rising powers have exhibited similar aggressive forms of behavior. "China," argues John Mearsheimer, "like all previous potential hegemons, [will] be strongly inclined to become a real hegemon."<sup>52</sup>

Yet China's case is different, and arguably more worrisome, than the experiences of other rising powers over the past two centuries in that aggressive nationalism may prove to be *the only source of regime legitimacy* in the wake of diminishing economic growth.<sup>53</sup> Indeed, Beijing's "China Dream" envisions China as the rejuvenation of China as a wealthy—and powerful—nation, a Greater China that includes not only Taiwan but also most of the South China Sea islands, some of which are also claimed by Indonesia, Malaysia, the Philippines, Taiwan, and Vietnam.<sup>54</sup> China has also laid claim to Japan's Senkaku Islands and, according to some, the Ryukyu Islands, including Okinawa.<sup>55</sup>

The CCP has been unapologetic about pursuing its hegemonic ambitions. In 2010, for example, China's then foreign minister, Yang Jiechi, dismissed concerns over Beijing's expansionism in a single breath, saying, "China is a big country, and other countries are small countries, and that is just a fact." Or as Singapore's Lee Kuan Yew put it,

- 52 John Mearsheimer, *The Tragedy of Great Power Politics* (New York: W. W. Norton & Company, 2001), p. 400; and Samuel P. Huntington, "America's Changing Strategic Interests," *Survival*, January/February 1991, p. 12. Cited in Friedberg, *A Contest for Supremacy*, p. 41. Unlike China, the rising great powers of the mid-nineteenth century—Prussia/ Germany, Japan, and the United States—all enjoyed high levels of regime legitimacy either through the vote or forms of monarchical government. All three also enjoyed sustained levels of healthy economic growth. Arguably, they all benefited from a popular belief that their country's form of government was acceptable. For a time after World War II, The Soviet Union—the twentieth century's rising power—could plausibly claim that communism was the wave of the future and point to rapid economic growth (more accurately, economic recovery) for support. Over time, these pillars of legitimacy faded, and the regime was increasingly left with appeals to its people on the basis of the country's superpower status and its leadership during the Great Patriotic War. Two of these rising powers avoided engaging in major wars of aggression: the United States and the Soviet Union. Unlike the other three rising powers, the United States is a democracy. Arguably, nuclear weapons made war too risky a proposition for the Soviet Union during the Cold War era (although it pursued an aggressive revisionist strategy for most of its 64-year history). Both autocratic Germany and Japan engaged in large-scale wars of aggression during their rise to great-power status.
- The rise of the Germany, Japan, and the United States to great power status was accompanied not only by a healthy dose of nationalism but also sustained economic growth and, in the case of Germany and the United States, the vote. Japan's ruling elite could also draw upon the profound legitimacy conferred on the government in the form of the emperor. Should China's economy falter, it would lack all these pillars, save for nationalism.
- President Xi Jinping describes the China Dream as working to "spread the Chinese spirit, which *combines the spirit* of the nation with patriotism as the core, and the spirit of the time with reform and innovation as the core [emphasis added]." Suthichai Yoon, "The China Dream: What Does It Really Mean?" *The Nation*, August 1, 2013, available at http://www.nationmultimedia.com/opinion/The-China-Dream-What-does-it-really-mean-30211609.html. Xi also speaks of a "strong-army dream." See "Xi Jinping and the Chinese Dream," *The Economist*, May 4, 2013, available at http://www.economist.com/news/leaders/21577070-vision-chinas-new-president-should-serve-his-people-not-nationalist-state-xi-jinping. Others see it as an attempt by the CCP to increase its hold over power further. As one observer puts it, "The Communist Party already controls much of the reality in China; now it wants to control its people's dreams." Clarissa Sebag-Montefiore, "The Chinese Dream," *New York Times*, May 3, 2013, available at http://latitude.blogs.nytimes. com/2013/05/03/whats-xi-jinpings-chinese-dream/?\_r=0.
- Justin McCurry, "China Lays Claim to Okinawa as Territory Dispute with Japan Escalates," *The Guardian*, May 15, 2013, available at https://www.theguardian.com/world/2013/may/15/china-okinawa-dispute-japan-ryukyu.

They [the Chinese] expect Singaporeans to be more respectful of China as it becomes more influential. They tell us that countries big or small are equal: we are not a hegemon. But when we do something they do not like, they say you have made 1.3 billion people unhappy. . . . So please know your place. $^{56}$ 

If China makes good on its territorial ambitions—and especially if this results in fracturing the U.S.—Japan alliance—China will almost certainly achieve hegemony in the Western Pacific. At present it seems content to move slowly; however, as implied above, its timetable could accelerate should it feel compelled to appeal to Chinese nationalism. Either way, China presents both the most formidable and the most likely enduring challenge for U.S. efforts to preclude the emergence of a hegemonic power in Eurasia.

How does China intend to accomplish its revisionist aims? Consistent with the country's strategic culture, Beijing's strategy emphasizes deception and surprise, and an indirect approach—winning without fighting.<sup>57</sup> The CCP's preference is not to wage war but to shift the balance of power in the Western Pacific over time, in part by establishing positional advantage—such as by militarizing natural and artificially created islands in the South China Sea astride key sea lines of communication and commerce—ultimately undermining U.S. alliances and cowing minor powers that might seek to counterbalance China by collaborating with the United States.<sup>58</sup>

Beijing's revisionist aims are increasingly backed by its rapidly growing military might, which appears designed to support three objectives. First, China seeks to shift the military balance in its favor. To this end, China is developing A2/AD forces designed to threaten U.S. forward bases and maritime surface forces through a combination of capabilities that include ballistic and cruise missiles, submarines, ocean surveillance systems, and cyber weapons, thereby isolating Taiwan and rendering U.S. allies in the region, such as Japan and South Korea, vulnerable to coercion from Beijing.

Second, China's military effort aims to deny the United States access to the global commons: space, cyberspace, the air, the seas, and undersea. Evidence of this is seen in China's aggressive development of anti-satellite (ASAT) weapons, its ongoing cyber operations against the United States, and its expanding submarine fleet. Assured access to the global commons is critical to the U.S. military's ability to project power to defend the country's vital interests and reassure allies and security partners. It is also essential to the U.S. ability to preserve access

<sup>56</sup> Han Fook Kwang et al., Lee Kuan Yew: Hard Truths to Keep Singapore Going (Singapore: Straits Times, 2011), p. 331.

<sup>57</sup> Sun Tzu, *The Art of War*, translated by Samuel B. Griffith (London: Oxford University Press, 1963); and Michael I. Handel, *Sun Tzu & Clausewitz* (Carlisle, PA: U.S. Army War College Strategic Studies Institute, 1991). For detailed treatments of Chinese strategic culture, see Francois Jullien, *The Propensity of Things*, translated by Janet Lord (New York: Zone Books, 1999); Francois Jullien, *A Treatise on Efficacy*, translated by Janet Lord (Honolulu, HI: University of Hawai'i Press, 2004); and Ralph D. Sawyer, *The Tao of Deception* (New York: Basic Books, 2007). See also Friedberg, *A Contest for Supremacy*, pp. 120–141.

Andrew F. Krepinevich, "China's 'Finlandization' Strategy in the Pacific," *Wall Street Journal*, September 11, 2010, available at http://www.wsj.com/articles/SB10001424052748704164904575421753851404076.

to vital resources and the global supply chain that supports the American economy. Third, China's nuclear forces—and perhaps its cyber warfare capabilities as well—are designed to hold the U.S. population and economy at risk of destruction or severe disruption.

## U.S. Response

To meet China's challenge to the liberal democratic order, and encourage it to pursue a "peaceful rise" in deeds as well as words, in 2011 the Obama administration announced its intentions to "pivot" the U.S. military focus to the Asia-Pacific region. The pivot involves "rebalancing" U.S. forces to increase their presence in that part of the world. By 2020 roughly 60 percent of U.S. air and naval forces are to be oriented on the region. <sup>59</sup> Five years on, however, the "pivot" has not discouraged China from its efforts to shift the regional military balance in its favor. Its continuing military buildup has far outstripped what have turned out to be comparatively modest U.S. countervailing efforts. Key U.S. allies, particularly Australia and Japan, and close friends like Singapore, along with prospective partners like Indonesia and Vietnam, realize that they cannot counterbalance China without strong U.S. support and leadership. Consequently, they are hoping for a more vigorous U.S. effort to offset the PLA's (People's Liberation Army) growing capabilities.

The key to preserving regional stability lies along the so-called first island chain, which begins at the northern Japanese island of Hokkaido and runs through that country's main islands, passing along the Ryukyu island chain to Taiwan. From there it tracks along the Philippine Islands down to Singapore. Recognizing the importance of the FIC to its security, the United States established alliances following World War II with both Japan and the Philippines and a security commitment to Taiwan.

<sup>59</sup> David Nakamura, "Obama Aims to Reinvigorate Asia Strategy," Washington Post, April 16, 2014, available at https://www.washingtonpost.com/politics/obama-aims-to-reinvigorate-asia-strategy/2014/04/16/4a46ed5e-c4bf-11e3-bcec-b71ee10e9bc3\_story.html.



FIGURE 2: THE FIRST AND SECOND ISLAND CHAINS

In the northern sector of the FIC, which comprises its main islands and the Ryukyu island chain, Japan is undertaking efforts at improving its defenses on its southernmost main island of Kyushu and along the Ryukyu Islands. 60 No corresponding effort is being made, however, along the FIC's southern sector (Taiwan and the Philippines) or along the second island chain, which runs from Japan through Iwo Jima and Guam, and from there down to New Guinea.

Recently, however, the United States has taken some tentative but encouraging steps to counterbalance China's aggressive moves. They include conducting freedom of navigation (FON) operations by air and naval forces through the South China Sea, reaching an agreement with the Philippines on obtaining access to bases in that country, and ending the arms embargo of

Sydney J. Freedberg Jr., "Japan Looks South: China's Rise Drives New Strategy," Breaking Defense, August 3, 2015, available at http://breakingdefense.com/2015/08/japan-looks-south-chinas-rise-drives-new-strategy/; Tim Kelly and Nobuhiro Kubo, "Exclusive: Japan's Far-Flung Island Defence Plan Seeks to Turn Tables on China," Reuters, December 18, 2015, available at http://in.reuters.com/article/japan-military-china-idINKBNOU107E20151218; and John Pollock, "Japan Prepares for Anti-Access/Area Denial (A2/AD) in the East China Sea," The NATO Association of Canada, February 3, 2016, available at http://natoassociation.ca/japan-prepares-for-anti-accessarea-denial-a2ad-in-the-east-china-sea/.

Vietnam.<sup>61</sup> Yet these are modest steps. Time is not on the side of the United States with respect to organizing states in the region to counter-balance the growth in Chinese military power. Consequently, America's allies and partners in the region are increasingly questioning its ability—and willingness—to meet its longstanding security commitments.

In brief, the United States is faced with a strategic choice between accommodating China's move to establish hegemony in the Western Pacific and working to establish and maintain a favorable balance of power in the region to sustain an era of unprecedented peace and prosperity. Although Washington purports to seek the latter objective, its actions under the Obama administration have proven insufficient to reverse unfavorable trends in the regional military balance.

#### North Korea

It has been decades since North Korea's conventional forces posed an existential threat to South Korea, especially when U.S. military capability is placed in the balance. Yet thanks to its emergence as a nuclear-armed state in 2006 and its growing arsenal of nuclear weapons over the past decade, Pyongyang's capacity to inflict damage on South Korea and Japan has risen exponentially.

Like the authoritarian rulers of the three principal revisionist powers, North Korean dictator Kim Jong-un's primary objective is regime survival. Yet he also dreams of unifying the peninsula under his control. Kim's nuclear capability, which is believed to number between ten to twenty fission weapons, is far better suited to support regime survival than territorial expansion. <sup>62</sup> Thus he is highly unlikely to risk the former objective to achieve the latter. The principal threat from North Korea may emerge if Kim concludes he must engage in nuclear brinksmanship to gain the military and economic assistance he believes is needed to maintain himself in power. <sup>63</sup>

# U.S. Response

Efforts by the last three U.S. administrations to block Pyongyang's march to a nuclear capability and, more recently, to freeze or reverse it, have proven unsuccessful. Reliance on

- That said, the recent election of Rodrigo Duterte to the presidency of the Philippines finds the U.S.—Philippine security relationship in turmoil. Felipe Villamor, "Duterte, Philippine President, Raises Doubts About Military Alliance with U.S.," New York Times, September 29, 2016, available at http://www.nytimes.com/2016/09/30/world/asia/duterte-philippines-us.html.
- 62 Some analysts estimate Pyongyang could have as many as fifty to a hundred weapons by 2020. Joel S. Wit and Sun Young Ahn, North Korea's Nuclear Futures: Technology and Strategy (Washington, DC: U.S.-Korea Institute at SAIS, Johns Hopkins University, 2015), p. 8. See also David Albright, North Korean Plutonium and Weapon-Grade Uranium Inventories (Washington, DC: Institute for Science and International Security, revised October 7, 2015).
- 63 For a description of how the North Korean nuclear threat might manifest itself in the form of nuclear use, see Andrew F. Krepinevich, "North Korea," in Andrew F. Krepinevich and Jacob Cohn, *Rethinking Armageddon: Scenario Planning in the Second Nuclear Age* (Washington, DC: Center for Strategic and Budgetary Assessments, 2016), pp. 65–81.

economic sanctions failed.<sup>64</sup> Diplomatic efforts through the Six-Party Talks<sup>65</sup> have not been rewarded.

The United States and the Republic of Korea (ROK) have belatedly moved to deploy air and missile defenses in the ROK to address the growing nuclear threat. These defenses may prove an effective deterrent against nuclear attack in the short run, and may even allow for a successful defense in the event of a nuclear attack involving a single or small number of weapons. But North Korea's expanding nuclear arsenal may enable its use of "haystack" tactics in an attack while retaining a sizeable residual arsenal that would complicate U.S. and South Korean efforts to fashion both a credible deterrent or an effective military response. 66

# **Europe**

#### Russia

If Vladimir Putin has a "Russia Dream" corresponding to Xi's "China Dream" it might best be summarized in a speech given by Putin in 2005 in which he mourned the collapse of Soviet Russia's empire:

Above all, we should acknowledge that the collapse of the Soviet Union was a major geopolitical disaster of the century. As for the Russian nation, it became a genuine drama. Tens of millions of our co-citizens and co-patriots found themselves outside Russian territory.<sup>67</sup>

For nearly two decades Russia has been led, directly or indirectly, by Putin. Aside from preserving himself in power, Putin is primarily concerned with reestablishing Russia as a great power, in part by restoring Moscow's spheres of influence over the former Soviet republics that include three sovereign states now members of NATO.<sup>68</sup> The latter objective has become increasingly the means by which he seeks to accomplish the former. Moscow views NATO's post–Cold War expansion into Eastern Europe as a contemporary *Drang nach* 

- 64 For a chronicle of failed diplomatic efforts aimed at preventing North Korea from acquiring a nuclear capability, see Gordon G. Chang, Nuclear Showdown: North Korea Takes on the World (New York: Random House, 2006).
- 55 Jayshree Bajoria and Beina Xu, The Six Party Talks on North Korea's Nuclear Program (New York: Council on Foreign Relations, September 2013), available at http://www.cfr.org/proliferation/six-party-talks-north-koreas-nuclear-program/p13593.
- A "haystack" attack involves a relatively large number of ballistic missiles (the haystack), only a small percentage of which are armed with a nuclear warhead (the "needles"). Haystack attacks are attractive to nuclear powers with small arsenals when confronting an enemy possessing advanced missile defenses. The objective of this form of attack is to maximize the chances of a nuclear weapon reaching its target by compelling the defender to spread his efforts out against all the incoming missiles, as he cannot distinguish between those armed with nuclear warheads and those that are not. For a discussion of how a haystack attack might be employed by North Korea against Japan or South Korea, see Ryan Boone, "Haystack Attack," in Krepinevich and Cohn, *Rethinking Armageddon*, pp. 65–81, 125–129.
- 67 Quoted in Victor Davis Hanson, "What Makes Vladimir Run?" Strategika, February 2015, p. 1.
- 68 Dmitri Trenin, "The Revival of the Russian Military: How Moscow Reloaded," Foreign Affairs, May—June 2016, available at https://www.foreignaffairs.com/articles/russia-fsu/2016-04-18/revival-russian-military.

Osten (Drive to the East), while also retaining its suspicions regarding China's long-term territorial ambitions.<sup>69</sup>

This is borne out in Putin's actions in the face of Western sanctions and the collapse of commodity prices. To date, he has successfully diverted the Russian people's attention away from mounting economic difficulties at home, staking his popularity on nationalism through his efforts at restoring Russia's status as a great power. Putin is focused on shaping the existing order in Eastern Europe and the former Soviet republics by demonstrating that Russia remains capable of influencing events beyond its borders, to include establishing spheres of influence over major parts of the former Soviet empire. To provide the means to support his ambitions, in 2008 Russia undertook a series of military reforms accompanied by a major increase in defense spending to transform its armed forces into a smaller, lighter, more mobile, and better-trained force oriented on local and regional conflicts. To Today Russian conventional forces, while modest in comparison with those of the Soviet era, are significantly more formidable than those of the early 2000s. Moscow now boasts a larger army than any European power, while its submarines deploy to areas where they had not been seen for a decade or more.

In the absence of a strong U.S. counter-response, Moscow followed its forcible annexation of Crimea with support for pro-Russian separatists in eastern Ukraine, to include providing logistical and intelligence support as well as committing some regular Russian units and Special Forces (Spetsnaz). Moscow continues pressuring Ukraine, while deploying forces outside Europe to the Middle East (Syria); pursuing efforts to intimidate NATO front-line states in Eastern Europe (the Baltic States in particular); harassing U.S. and allied air and naval forces operating in international waters; and violating the terms of the 1987 INF Treaty. As if these actions were not sufficiently provocative, its military is embracing a doctrine that envisions the use of nuclear weapons to redress its military's inferiority in

- Peter Zwack, "Russia's Contradictory Relationship with the West," *Prism*, August 3, 2016, pp. 143–162; Joe Burgess, "Why China Will Reclaim Siberia," *New York Times*, January 14, 2015, available at http://www.nytimes.com/roomfordebate/2015/01/14/the-most-debated-room-for-debates/why-china-will-reclaim-siberia-21; and "Putin and Xi: Not Quite the Allies They Seem," *The Financial Times*, May 7, 2015, available at https://www.ft.com/content/cd637c7e-f4a8-11e4-8a42-00144feab7de.
- 70 Trenin, "The Revival of the Russian Military: How Moscow Reloaded."
- Jim Sciutto, "Top Navy Official: Russian Sub Activity Expands to Cold War Level," CNN, April 15, 2016, available at http://www.cnn.com/2016/04/15/politics/mark-ferguson-naval-forces-europe-russian-submarines/.
- Russia asserts the Baltic States were created illegally at the end of the Cold War. See Samuel Bendett, "Russia: The Baltic States Were Created Illegally," *The Compass*, July 1, 2015, available at http://www.realclearworld.com/blog/2015/07/russia\_the\_baltic\_states\_were\_created\_illegally\_111289.html.
- 73 The Supreme Allied Commander, Europe (NATO's senior commander), General Curtis "Mike" Scaparrotti has gone so far as to declare publicly that Putin "is deliberately trying to break up NATO." John Grady, "EUCOM Nominee Scaparrotti: Putin "Trying to Break Up NATO'," USNI News, April 21, 2016, available at https://news.usni.org/2016/04/21/eucom-nominee-scaparrotti-putin-trying-to-break-up-nato?utm\_source=USNI+News&utm\_campaign=ad4e1d885d-USNI\_NEWS\_DAILY&utm\_medium=email&utm\_term=o\_odd4a1450b-ad4e1d885d-230427881&mc\_cid=ad4e1d885d&mc\_eid=e92e0003b9.

conventional forces ("escalate to de-escalate").<sup>74</sup> Public opinion polls suggest that despite the privations brought on by economic sanctions and, especially, the decline in commodity prices, Putin's aggressive foreign policy is enabling him to maintain his popularity with the Russian people.<sup>75</sup>

Yet another major thrust of Putin's strategy is to delegitimize U.S. and Western democratic institutions through so-called active measures such as subversion, disinformation, and propaganda while exploiting social media. These efforts are quite reminiscent of Soviet Russia's efforts.<sup>76</sup>

Putin is playing a weak hand well. Russia is a great power in decline. Like the Ottoman Empire in the 19<sup>th</sup> and early 20<sup>th</sup> centuries, Russia appears to be undergoing a slow disintegration. The country is plagued by widespread corruption, an inability to move beyond its commodities-based economic model, and a weak demographic profile. Historically collapsing empires such as Russia often find their neighbors—the United States and China, in Putin's eyes—seeking to exploit the imperial power's growing weakness, while the declining power attempts to restore its dominance over the periphery.

As befits an empire in decline, Russia also finds itself challenged by minority groups within its borders—in this case radical Islamists operating along its southern frontiers and Chinese migration into Siberia. Over time the challenges posed by an expansionist China and a radicalized internal Muslim population may find Russia's interests becoming more aligned with those of Western Europe and the United States. Moreover, Russia is poorly positioned to engage in a protracted competition with the United States. Its economy is roughly only one-tenth and its population half that of America's, and the gap in both cases is widening. This suggests that although it is clearly a revisionist power, the threat from Russia may be approaching its high-water mark. Over time it could evolve into a status quo power seeking primarily to defend what it has, rather than what it has lost. Should this come to pass, Russia could emerge as a U.S. security partner.

<sup>74</sup> Nikolai Sokov, "Why Russia Calls a Limited Nuclear Strike 'De-Escalation'," *Bulletin of the Atomic Scientists*, March 2014, available at http://thebulletin.org/why-russia-calls-limited-nuclear-strike-de-escalation.

Maria Lipman, "Putin's Domestic Boost," commentary, European Council on Foreign Relations, September 2014, available at http://www.ecfr.eu/article/commentary\_putins\_domestic\_boost308.

NATO's deputy secretary-general had declared Russia's active measures seek to promote "an endlessly changing storyline designed to obfuscate and confuse to create the impression that there are no reliable facts, and therefore no truth." "Inside the Bear," *The Economist*, October 22, 2016.

<sup>77</sup> Neil MacFarquhar, "For Russia, Links Between Caucasus and ISIS Provoke Anxiety," *The New York Times*, November 21, 2015, available at http://www.nytimes.com/2015/11/21/world/europe/for-russia-links-between-caucasus-and-isis-provoke-anxiety.html?\_r=o; "Is Siberia Becoming Chinese?" *France 24 Reporters*, October 1, 2012, available at http://www.france24.com/en/20120928-reporters-siberia-chinese-immigration-russia-blagoveshchensk-farming-labourers-business-tensions.

## U.S. Response

Although President George W. Bush believed that Putin was "very straightforward and trustworthy" and President Barack Obama sought to "reset" the U.S. relationship with Russia, efforts by the two recent administrations to establish a more positive basis for U.S.–Russian relations have been unsuccessful.<sup>78</sup>

As reflects the actions of a revisionist power, the Russians have not sought common ground with the United States. Over the past decade, Russia has ignored repeated warnings from the United States and NATO regarding its disregard for the rules-based international order. During the George W. Bush administration cyber attacks on Estonia in 2007 were followed by an invasion of Georgia in 2008. Russia "accepted" President Obama's offer in 2009 to "reset" its relationship with America, but on its terms, in the form of a largely favorable nuclear arms control agreement and U.S. willingness to exercise "greater flexibility"—that is to say, "limitations"—on U.S. ballistic missile defenses in Eastern Europe.<sup>79</sup>

Having pocketed these gains, Russia increased its aggressive behavior, as described above. In particular, the position of NATO's Baltic States seems increasingly precarious. Bounded by Russia to the north, west, and east; and by Belarus, a close partner of Russia's, to the southeast; Estonia, Latvia, and Lithuania lack strategic depth and military muscle. They, along with Poland and other NATO frontline states, want more in the way of U.S. military support, given the ineffectiveness of U.S. economic sanctions and diplomacy to date.<sup>80</sup>

As noted above, the United States has responded to Russia's aggression in Crimea and Ukraine by imposing economic sanctions. To date, however, the "sanction" of dramatically lower commodity prices imposed by the market has inflicted substantially more damage to the Russian economy. Yet Russia' economic woes—driven primarily by a steep fall in energy prices—finds Putin doubling down on his aggressive actions abroad. As in the Western Pacific, U.S. countervailing measures appear insufficient to stem the erosion of its position in the region, let alone reverse it. On a more positive note, unlike the situation in the Western Pacific, time appears to be on the side of the United States in Eastern Europe. This means, however, that Russia may be incentivized toward aggressive action while the chances of success are at their highest. In this case, a relatively modest investment by the United States and its major NATO allies could do much to promote stability in the ETO.

<sup>78</sup> Steven Mufson, "Bush Saw Putin's 'Soul.' Obama Wants to Appeal to His Brain," The Washington Post, December 1, 2015, available at https://www.washingtonpost.com/business/economy/bush-saw-putins-soul-obama-wants-to-appeal-to-his-brain/2015/12/01/264f0c7c-984b-11e5-8917-653b65c809eb\_story.html; and Cutmore and Matthews, "Russia-US Relations Reset 'Impossible': PM Medvedev."

<sup>79</sup> Luke Harding and Ian Traynor, "Obama Abandons Missile Defense Shield in Europe," *The Guardian*, September 17, 2009, available at https://www.theguardian.com/world/2009/sep/17/missile-defence-shield-barack-obama.

<sup>80</sup> Rick Lyman, "Eastern Europe Cautiously Welcomes Larger U.S. Military Presence," *The New York Times*, February 2, 2016, available at http://www.nytimes.com/2016/02/03/world/europe/eastern-europe-us-military.html.

#### The Middle East

#### Iran and Radical Sunni Islamism

The challenges posed by China and Russia to U.S. security are compounded by the threat of radical Islamism, in both its Shi'a and Sunni manifestations. The Arab states that spawned radical Sunni Islamist forces are in many cases artificial creations, the product of an "unnatural" birth resulting from European imperial designs following World War I. The European great powers, principally France and Great Britain, created countries based on power politics rather than on national identities. In so doing they planted the seeds of enduring internal discord.

"Strongman" governments proved useful in suppressing disenfranchised groups in these countries but failed to create a broad sense of legitimacy. Economic stagnation and the "oil curse" have contributed to widespread underemployment, further undermining support for these regimes. Support for the governments of many Arab states is also weakened by the rapid growth of social media. Alternate sources of information have greatly compromised these regimes' ability to control the narrative regarding the causes of their lagging progress. 82

The slide toward instability in the Arab World accelerated with the 2003 U.S.-led invasion of Iraq that overthrew that country's dictator, Saddam Hussein. The George W. Bush administration lacked both a strategy and the necessary resources (to include domestic support) to achieve its ambitious goal of creating a moderate, secular and democratic Iraqi state. With the Obama administration's decision to end the U.S. military presence in Iraq, doubts emerged in the Middle East and beyond regarding America's long-term commitments to its security partners in the region. The situation became ripe for challenges to Arab regimes, both from Iran and indigenous radical Sunni Islamist groups, which had been working to expand their influence since the late 1970s. 83

These factors combined to trigger the "Arab Spring" that destabilized a host of governments, including those of Bahrain, Egypt, Libya, Syria, Tunisia, and Yemen. U.S. active or passive encouragement of the revolutions in Egypt and Libya only heightened concerns among

- The oil curse refers to the misfortunes experienced and negative characteristics exhibited by lesser-developed oil exporting states. According to Michael Ross, they are 50 percent more likely to be authoritarian than similar non-oil states, four times less likely to embrace democracy, and 200 percent more likely to engage in civil wars. Leif Wenar, "How to End the Oil Curse," Foreign Affairs, June 3, 2016, available at https://www.foreignaffairs.com/articles/2016-06-03/how-end-oil-curse. For a detailed examination of the issue, see Michael L. Ross, The Oil Curse: How Petroleum Wealth Shapes the Development of Nations (Princeton, NJ: Princeton University Press, 2012). The "curse" is also felt in terms of the sharp appreciation that often occurs to the currency of a nation that experiences an oil revenue windfall, making other sectors of the economy less competitive in international markets. Such wealth can also make regimes less dependent on the good will of those groups that it would otherwise need to tax, and hence more prone to be autocratic. "The Paradox of Plenty," The Economist, December 20, 2005, available at http://www.economist.com/node/5323394.
- 82 "How Governments Handle the News," *The Economist*, February 7, 2008, available at http://www.economist.com/node/10666436.
- 83 Murat Özçelik, "The Two Radical Sources of Instability in the Middle East," global memos, Council on Foreign Relations, August 2014, available at http://www.cfr.org/councilofcouncils/global\_memos/p33347.

longstanding U.S. partners in the region, such as Israel and Saudi Arabia, regarding America's reliability and effectiveness as an ally.<sup>84</sup> The U.S. position has further eroded as its once-close ally Turkey continues charting an increasingly independent course under President Recep Erdogan that finds Washington and Ankara on opposite sides of many key security issues.<sup>85</sup>

The regional instability that was spawned with the collapse of the old order that existed in many Arab states prior to the Second Gulf War<sup>86</sup> shows no sign of ending soon. In the meantime, U.S. rivals such as the radical Sunni Islamists, Russia, and Iran have moved to fill the void left by the decline of U.S. power and influence.

#### Iran

The Shi'a form of radical Islamism is led by Iran. The Islamic Republic has been ruled by conservative clerics since the 1979 revolution that toppled the Shah. Confronted by what it sees as external threats and internal discontent, the regime's principal objective is to retain its hold on power. Fran's leaders are pursuing several paths toward this end. One centers on exploiting the reduced U.S. presence in the region to establish Iran as the region's dominant state by isolating its principal Sunni Arab rivals and undermining Sunni Arab rule in states with predominant Shi'a populations (such as Bahrain). Tehran is also working to solidify its influence where it has strategic interests, as in Lebanon and Syria. Supplementing its realpolitik approach, Iran's mullahs also are exploiting opportunities to spread the Shi'a faith, in part as a defense against radical Sunni Islamism.

By establishing their country as the dominant state in the Middle East, Iran's rulers would also be securing their regime by enhancing its legitimacy at home. This objective of regional dominance is not fanciful in the eyes of Iran's leaders. Over several millennia their country's fortunes have waxed and waned, oscillating between periods of empire punctuated by eras of subjugation by external powers.

From a position of weakness in 1979, and then through a period of considerable potential danger during its war with Iraq and following the U.S. victory in the Cold War, the regime's strategy was primarily defensive. Since the U.S. invasion of Iraq in 2003, however, it has become increasingly offensive in character, with substantial gains to show for it.<sup>88</sup> Iran's

- 84 Barak Ravid, "Netanyahu: Arab Spring Pushing Mideast Backward, Not Forward," *Haaretz*, November 24, 2011, available at http://www.haaretz.com/news/netanyahu-arab-spring-pushing-mideast-backward-not-forward-1.397353.
- 85 Greg Jaffe, "U.S. Relationship with Turkey 'Is Only Going to Get More Complicated'," The Washington Post, July 16, 2016, available at https://www.washingtonpost.com/politics/us-relationship-with-turkey-is-only-going-to-get-more-complicated/2016/07/16/539c4a9o-4b7a-11e6-bdb9-701687974517\_story.html.
- 86 In this paper the terms "First Gulf War" refers to the 1991 conflict (Operation Desert Storm) and "Second Gulf War" to the 2003 war (Operation Iraqi Freedom).
- 87 OSD, *Unclassified Report on Military Power of Iran*, report to Congress (Washington, DC: DoD, April 2010), available at http://www.politico.com/static/PPM145\_link\_042010.html.
- 88 For a discussion of Iran's shift to a more offensive strategy placing greater emphasis on military power, see Michael Eisenstadt, *The Strategic Culture of the Islamic Republic of Iran: Religion, Expediency, and Soft Power in an Era of Disruptive Change* (Quantico, VA: Marine Corps University, November 2015).

mullahs have made remarkable progress toward establishing a sphere of influence from western Afghanistan to the shores of the eastern Mediterranean, running through Iraq, Syria, and Lebanon.

Iran's gains are closely linked to the declining influence of the United States in the Middle East. Over the past decade, the most formidable barrier to Iranian expansionism—the threat of U.S. military force—has diminished dramatically with the withdrawal of U.S. forces from Iraq, the large reduction in U.S. force levels in Afghanistan, and the Obama administration's determination to avoid a major military commitment in the region. Tehran has sought to fill the power vacuum created by America's withdrawal. Iran now supports a proxy war in Yemen and subversive activity in Bahrain, presenting archrival Saudi Arabia with threats on multiple fronts. It also backs the Hezbollah and Hamas terrorist organizations. Both have engaged Israel in a series of low-level conflicts, while Hezbollah has also been active in Iraq and Syria. Iran's efforts to support its client regime in Syria against ISIS and U.S.-backed moderate forces have also been aided by Russia's return to the region as a prospective partner. Moscow has deployed forces into Syria in support of Iran's client Assad regime, while agreeing to sell Iran advanced military systems. Iran has returned the favor, giving the Russian military access to bases on its territory, albeit on a temporary basis.

Nuclear weapons clearly play a role in Iran's plans. This should come as no surprise. Iran's leaders cannot help but be struck by the very different treatment accorded to Saddam Hussein and Muammar Qaddafi, who abandoned their nuclear programs, as compared to Kim Jong-il and Kim Jong-un, the North Korean dictators who exploited the international community's faith in the value of negotiations to buy the time needed to develop nuclear weapons. Given this history, Iran's leaders logically view a nuclear weapons capability as a strong guarantor against external efforts to effect regime change, and as a means of enabling them to pursue their proxy wars more aggressively. Accordingly, they are following North Korea's example of negotiating agreements with the international community that enable them to make progress toward a nuclear capability while insulating themselves from attack. Acquiring nuclear weapons using the "DPRK model" will also enable Iran to raise the cost the United States could incur should it attempt to return to the region in force.

This is not to say that Iran faces no opposition in the region. As evidenced by its operations against ISIS as well as Iranian proxies in Yemen, and the presence of the Fifth Fleet in Bahrain, the United States has not entirely abandoned the field. Moreover, the major Sunni Arab states, including Egypt, Saudi Arabia, and the United Arab Emirates, are working to counter Iranian activity in Gaza, Syria, and Yemen. Israel, with the region's most powerful military, represents a major potential barrier to Iranian expansionism. Turkey, despite its growing internal fissures, also sees itself as a natural rival of Iran for the role of regional hegemon. These states' combined economic and military potential far exceeds Iran's. <sup>89</sup> Yet it

<sup>89</sup> Armin Rosen et al., "Most Powerful Militaries in the Middle East [Ranked]," *Business Insider*, October 27, 2014, available at http://www.businessinsider.com/most-powerful-militaries-in-the-middle-east-2014-8?op=1/#.

is far from clear whether they can overcome their mutual fears and suspicions sufficiently to translate their efforts into coherent, effective action. Nor can Iran discount the potential challenge posed by the radical Sunni Islamist movement in its various forms.

#### Radical Sunni Islamism/ISIS

The leadership of the Sunni radical Islamist movement is diffused. Once dominated by al Qaeda, the movement's primary force is now the Islamic State of Iraq and Syria. The Sunni strain of radical Islamism has ambitious objectives. ISIS, for example, seeks to reestablish the Caliphate and evict all non-Sunni Muslim elements from the Islamic world. <sup>90</sup> Its ultimate goal is to subject the entire world to the will of Allah, by force if necessary, as called for in its followers' interpretation of the Qur'an. ISIS intends to impose a form of Islam that involves slavery for non-believers and death for apostates—to include roughly 200 million Shi'a. Indeed, ISIS views Iran or, more accurately, its Shi'a population, as the principal threat to—and offender of—its Sunni Muslim faith. ISIS sees its acts of terrorism and barbarism as acts of piety—acts justified as a means to realizing the kind of world ISIS believes Allah has called upon Muslims to create. <sup>91</sup> ISIS hopes its acts of terrorism and brutality will induce Western governments to overreact, both at home and abroad, in ways that mobilize Muslims in Western countries and the Middle East against their governments, and rally Muslims in other parts of the world to join their cause. <sup>92</sup>

There is also a millenarian element in ISIS—and among "Twelver" Shi'as as well.<sup>93</sup> Thus ISIS is awaiting the forces of "Rome" (the West) to arrive in the Middle East where, according to prophecy, they will be defeated at Dabiq (a small town in Syria), triggering the countdown to the apocalypse that will lead to the imposition of Allah's writ over mankind.<sup>94</sup>

#### U.S. Response

The United States was clearly the dominant power in the Middle East from the mid-1970s until recently. It now finds its influence greatly diminished. Yet U.S. strategic objectives remain ambitious. Current U.S. policy seeks to reduce the challenge to regional stability posed by Iran, blocking its efforts to emerge as a regional (and nuclear-armed) hegemon along with destroying (or suppressing) radical Sunni Islamist movements, ISIS in particular. Yet U.S. strategy for achieving these ends emphasizes minimizing direct involvement in the region,

<sup>90</sup> Tim Lister, "What Does ISIS Really Want?" CNN, December 11, 2015, available at http://www.cnn.com/2015/12/11/middleeast/isis-syria-iraq-caliphate/.

<sup>91</sup> Graeme Wood, "What ISIS Really Wants," The Atlantic, March 2015, available at http://www.theatlantic.com/magazine/archive/2015/03/what-isis-really-wants/384980/; and James V. Schall, "Realism and Islam," The Catholic World Report, April 17, 2016, available at http://www.catholicworldreport.com/Item/4731/realism\_and\_islam.aspx.

<sup>92</sup> Lister, "What Does ISIS Really Want?"

<sup>93</sup> Wood, "What ISIS Really Wants."

<sup>94</sup> Ibid.

suggesting a major mismatch between U.S. objectives and the resources being devoted to achieve them.<sup>95</sup>

To date, U.S. strategy toward Iran has produced meager results. The shift in the regional military balance toward Iran is affecting U.S. relations with its longstanding partners in the region. Washington's standing with Egypt, Israel, and Saudi Arabia is at its lowest point in decades. Confidence in Iran's willingness to abide by international norms of behavior is weak, and its compliance with its obligations under the JCPOA is open to dispute. For example, three months after signing the agreement, Iran tested a new ballistic missile capable of delivering a nuclear warhead in violation of UN Security Council Resolution 1929. 96

The end of the sanctions regime has strengthened Iran geopolitically and economically. Russia has emerged as a partner of Iran, both in terms of its war on ISIS and as a provider of advanced weaponry. This is enhancing Iran's capacity to shore up client regimes like Assad's while enabling it to continue its support of proxy forces seeking to pressure Israel and undermine Sunni Arab regimes in the region. Looking ahead, Tehran's relief from sanctions, which includes receiving tens of billions of dollars in frozen assets from the United States, will enable Iran's military to accelerate its modernization efforts as well as its support of client states and groups.

Having backed off its demands that Syrian dictator Bashar al Assad step down, the Obama administration's goal of removing him from power appears more distant now than it was when announced. If anything, the Assad regime has been strengthened as a consequence of Iran's intervention in Syria's civil war, U.S. efforts to combat ISIS, and Russia's campaign to suppress ISIS and the U.S.-backed opposition to Assad. In brief, the U.S. position in the Middle East is far weaker than prior to the Second Gulf War.

Once viewed as a minor threat<sup>97</sup> by the United States, ISIS is proving resilient in the face of efforts by Iran, Iraq, Russia, Turkey, and the United States, among others, to suppress it. As noted above, the U.S. strategy to destroy ISIS has produced limited success.<sup>98</sup> Despite years of effort, it is not possible to identify a "light at the end of the tunnel" in the war against ISIS and radical Sunni Islamism.

The challenge posed by radical Sunni Islamists is not predominantly military in character. Rather it is largely political, economic, social, and theological. Thus it cannot be defeated by

Sanford Lakoff, "Leading from Behind: The 'Obama Doctrine' and U.S. Policy in the Middle East," *Strategic Assessment* 16, no. 1, April 2013, available at http://www.inss.org.il/uploadImages/systemFiles/adkan16\_1ENGd\_Lakoff.pdf.

<sup>66</sup> Louis Charbonneau, "U.S. Confirms Iran Tested Nuclear-Capable Ballistic Missile," Reuters, October 16, 2015, available at http://www.reuters.com/article/us-iran-missiles-usa-idUSKCNoSA2oZ20151016.

<sup>97</sup> David Remnick, "Going the Distance: On and Off the Road with Barack Obama," The New Yorker, January 27, 2014, available at http://www.newyorker.com/magazine/2014/01/27/going-the-distance-david-remnick.

John Brennan, Director of the Central Intelligence Agency, "Testimony before the Senate Select Committee on Intelligence," June 16, 2016, available at https://www.cia.gov/news-information/speeches-testimony/2016-speeches-testimony/statement-by-director-brennan-as-prepared-for-delivery-before-ssci.html.

military means alone, or even principally by such means. Washington's regional partners have the ability to suppress ISIS militarily, especially with U.S. support. But once suppressed, the defeat of radical Sunni Islamists is primarily a job for police and intelligence forces, and for political leaders who can offer their people a better life. Consequently, there is no reason in principle why the United States should commit large forces to the fight, or why local forces cannot succeed in suppressing these groups if provided with robust U.S. military assistance.

# **Summary**

The U.S. position along the Eurasian periphery has declined over the past 15 years. Moreover, key trends in each of the three theaters of operation remain largely negative and disturbing. This erosion in the U.S. security posture has found some experts forecasting not only the end of America's unipolar moment but also a period of extended decline. Such predictions have been advanced before, as in the early years of the Cold War when the Soviet Union's Nikita Khrushchev boasted that his country would soon "bury" the United States in their global competition. Thirty years later, as Soviet Russia stood on the verge of collapse, others were forecasting that "Japan, Inc." would displace America as the world's leading economic power. These predictions also proved hollow. Now, over a quarter of a century later, the prophets of America's demise are once more being heard. They have been wrong twice before but, as they are fond of saying on Wall Street, past performance is not necessarily a reflection of future results. The next chapter attempts to reduce some of the uncertainty surrounding this important question by providing an assessment of U.S. ability to preserve its interests along the Eurasian periphery over the planning horizon.

# **CHAPTER 3**

# Strategic Assessment

Despite the disturbing trends in the security environment outlined above, at present, the United States enjoys an overall favorable position relative to the revisionist powers. Its advantages have, however, with few exceptions, diminished significantly over the past 15 years, and especially over the past five. The decline has been broad, encompassing the economic, political, military, and social dimensions of power, fueling speculation that the country may be on the path toward a protracted period of decline.<sup>99</sup>

Adding to its problems, as a global power the United States must diffuse its efforts along the Eurasian periphery, making it difficult to concentrate power in any particular region. The revisionist states, on the other hand, can far more readily concentrate and optimize their efforts on their own region. Furthermore, whereas the U.S. military enjoys an advantage in the quality—and often in the quantity—of its "capital stock" (such as planes, armored vehicles, and warships), rapid advances in military-related technologies threaten to accelerate their depreciation in value as emerging technologies are leveraged to develop important new sources of military advantage. Consequently, there is a pressing need for the U.S. military to identify and develop new sources of military advantage and to mitigate existing weaknesses within the context of a well-crafted defense strategy.

By virtue of being the only major power in the Western Hemisphere and with oceans separating it from the Eurasian landmass, the United States enjoys great strategic depth relative to the world's other major powers. This enables it to pursue a strategy employing layered defenses, or defense in depth. The U.S. military has been able to exploit this geostrategic advantage, owing in part to its victories in World War II and the Cold War that enabled it to establish and sustain a global basing posture along the Eurasian periphery, especially in Europe and the Western Pacific. This advantage endures thanks to the impressive U.S. portfolio of allies and security partners possessing formidable military potential in each of the

<sup>99</sup> For a discussion on the elements of strategy, see Michael Howard, "The Forgotten Dimensions of Strategy," Foreign Affairs, Summer 1979, pp. 975–986.

three Eurasian theaters, but most especially in Europe. Thus, for over 70 years the United States has enjoyed the advantage of being able to confront its enemies far from its shores.<sup>100</sup>

Maintaining this advantage, however, also requires the ability to project and sustain military power to the Eurasian periphery from the United States on a large scale over transcontinental distances. The U.S. military's ability to do so is being increasingly challenged by the revisionist powers, most notably China, in the form of A2/AD capabilities and—in the case of China and Russia—nuclear weapons. These capabilities are being tailored to meet each rival's particular circumstances and resource limitations. The revisionist powers' common goal is to impose substantial—and hopefully prohibitive—costs on the U.S. military should it attempt to project and sustain power along traditional lines. 101 Absent countervailing U.S. steps to offset these developments, the overall military balance in the Eurasian periphery will likely continue shifting in the revisionist powers' favor. Should this occur, the threat to longstanding U.S. security interests and those of America's allies and partners will increase, perhaps to the point where the cost to the United States of projecting power along traditional lines will become unacceptable in political terms, and unfeasible in military terms.

# **Economic**

A country's military potential is closely associated with its economic might, to include both its productive capacity and technical sophistication. The locus of world economic power is shifting from Europe to Asia, reflecting a decades-old trend. This trend seems destined to continue for the foreseeable future, as the Asian countries' current overall growth rate exceeds that of the Europeans. Of all the Asian states, China's growth has been the most impressive. It has surpassed Japan as the world's second-largest economy, behind only that of the United States. This combination of economic might and relatively brisk economic growth rate, along with China's increasing technical sophistication, provides an increasingly firm foundation upon which to generate military power. It also supports the argument that Asia—the Western Pacific in particular—should be accorded top priority in U.S. military planning and priorities.

Moreover, viewed both individually (China) and collectively (China, Russia, Iran), the revisionist powers' economic might is substantially greater than any power or group of powers the United States has faced over the past century (see Table 1). Consider that at the time the United States entered World War I in 1917, the U.S. economy as measured by GDP was nearly three times that of Imperial Germany. When Imperial Japan's production peaked in 1943 during World War II, along with Nazi Germany's, their combined economic power was less

<sup>100</sup> While the United States shifted to more of an expeditionary force posture following the Cold War, it retained sizeable forces and major forward bases in the three Eurasian theaters. Its basing structure and forward-deployed forces actually increased in the METO.

<sup>101</sup> Since World War I, the preferred U.S. method of projecting and sustaining military power to distant theaters has been to deploy forces initially to major forward bases that were generally immune from enemy attack. Once these forces achieved sufficient size, the U.S. military would then initiate major offensives at the operational level of war. This pattern was followed in both the world wars, in the Korean and Vietnam wars, and in both the First and Second Gulf wars.

than 40 percent that of the United States. When Nazi Germany's production peaked a year later, the U.S. advantage was even more pronounced.

TABLE 1: GREAT POWER GDP AS A PERCENTAGE OF U.S. GDP<sup>102</sup>

Rival Power	Year	Percentageof U.S. GDP
Imperial Germany	1917	35.6%
Nazi Germany	1943	26.2%
Imperial Japan	1943	13.5%
Soviet Russia	1980	40.4%
Communist China	2014	59.4%

During the Cold War, Soviet Russia could do little better than these earlier rivals. In 1980, with the United States suffering from stagflation and the oil shocks following Iran's revolution, the USSR's economy was barely 40 percent that of the United States, and perhaps less. <sup>103</sup> Moreover, America's great power allies, such as Britain, France, the Federal Republic of Germany and Japan were among the world's great economic powers, and were making substantial military contributions in support of their U.S. ally.

Today China poses a far greater economic challenge to the United States than did Soviet Russia, Imperial Japan, or Nazi Germany. China's GDP is roughly 60 percent that of the United States, or 50 percent greater than any of America's principal rivals in the previous century. China's GDP is roughly six times that of Russia, and over 100 times greater than Iran's. Combined, China and Russia have a GDP over 70 percent than that of the United States, or roughly 75 percent greater than either the Axis powers of World War II or Soviet Russia in the Cold War. And while

The GDPs presented here are based on currency exchange rates. There are other methods of calculating GDP, such as in the form of purchasing power parity (PPP). Using the PPP methodology, China's GDP exceeds that of the United States by a ratio of 1.09:1.0. "GDP Ranking, PPP Based," World Development Indicators, The World Bank, updated December 16, 2016, available at http://data.worldbank.org/data-catalog/GDP-PPP-based-table.

<sup>103</sup> There is some debate over whether the Soviet Union's GDP ever reached 40 percent of the U.S. GDP size. Based on analysis done in the Pentagon's Office of Net Assessment and information acquired following the Soviet Union's collapse, there is reason to believe its GDP was substantially lower. Krepinevich and Watts, *The Last Warrior*, pp. 83–84, 106–107, 149–151, 154–155, 170–174, 190, 253, 261–262. "The Maddison-Project," *database*, Groningen Growth and Development Center, 2013 version, available at http://www.ggdc.net/maddison/maddison-project/home.htm.

traditional U.S. European allies remain among the world's great economic powers, their investments in defense have withered to the point where, in the case of the European powers, they barely meet NATO minimum standards, or in most cases, fail to meet them at all.<sup>104</sup>

China's economic growth rate continues to outstrip that of the United States, and by a substantial margin. If current trends continue America's longstanding advantage in economic scale—and, correspondingly, military potential—will continue to diminish, perhaps disappearing entirely. Some projections find the United States falling behind China in GDP by mid-century.<sup>105</sup>

China's ascendance is, of course, hardly assured. Over the past century there have been predictions that the United States would be surpassed economically by the Soviet Union, Japan, or a truly United Europe. <sup>106</sup> These predictions have not been fulfilled. Yet it would be foolish to discount the possibility that over this paper's planning horizon China could achieve economic preeminence, at least as measured by GDP, especially given the U.S. economic foundation's growing weakness, an issue which will be elaborated upon presently.

Adding to the challenge of relative U.S. economic decline, there are low economic entry barriers to some emerging forms of military competition, such as cyber warfare and perhaps biological warfare as well. <sup>107</sup> If so, even non-state entities may be able to generate far greater military capability than heretofore has been possible. If this proves out, it could further increase the scale of the challenges confronting the United States.

U.S. rivals have also proven adept at pursuing cost-imposing strategies by changing the form of the military competition. As the term suggests, a cost-imposing strategy is one in which a competitor finds itself devoting far more resources to address a threat than its enemy incurs to pose that threat. A primary example is the 9/11 attacks, which cost at most one or two million dollars for al Qaeda to generate, but which finds the United States spending billions of dollars each year to defend against. Yet another involves the roadside bombs—improvised explosive devices (IED)—that U.S. forces encountered in Afghanistan and Iraq. Each IED costs perhaps a few hundred dollars to fabricate, while the United States spent over \$40 billion to purchase specially designed troop carriers to defend against them, and nearly another \$20 billion,

- Gross Domestic Product does not provide a direct correlation with military potential. That said, viewed from the perspective of the two-plus centuries since the onset of the Industrial Revolution, there does appear to be a significant correlation, not only between a country's GDP and its military potential but also its military capability. A more detailed evaluation of national military potential and capability in the form of net assessments is needed in the three principal theaters of operation along the Eurasian periphery, and also in key functional areas (such as space, cyberspace, and the maritime domains). Unfortunately, such assessments, which require a level of effort comparable to a doctoral dissertation, are beyond the scope of this report.
- 105 Malcom Scott and Cedric Sam, "China and the United States: Tale of Two Giant Economies," Bloomberg, May 12, 2016, available at http://www.bloomberg.com/graphics/2016-us-vs-china-economy/.
- See Eamonn Fingleton, Blindside: Why Japan is Still on Track to Overtake the U.S. by the Year 2000 (New York: Houghton-Mifflin, 1995); and Kalin Anev Janse, "Is Europe Outperforming the U.S.?" World Economic Forum, October 30, 2015, available at https://www.weforum.org/agenda/2015/10/is-europe-outperforming-the-us/.
- 107 Dorothy Denning, "Barriers to Entry: Are They Lower for Cyber Warfare?" IO Journal, April 2009.

through its Joint Improvised Explosive Device Defeat Organization (JIEDDO), on techniques to defeat the bombs.<sup>108</sup>

For these reasons the United States cannot assume it can pursue a "rich-man's" strategy or buy its way out of its strategic errors, as it has at times over the past century. The being said, the United States is not without its advantages. Today it stands as the world's most advanced economic power. Its businesses are on the cutting edge of emerging technologies, including artificial intelligence, big data, the biosciences, directed energy, and robotics, among others with the potential to confer dramatic boosts in military effectiveness. The United States also enjoys ready access to a wide range of raw materials, and the ability to tap deeply into large financial markets in the event of war.

The United States also has an unsurpassed constellation of allies and partners that, when combined with its own resources, possesses greater economic and military potential than any other power or prospective coalition of powers that might confront them.<sup>109</sup> Translating that economic power into military might, however, is another matter, requiring a level of political will that is almost uniformly lacking among America's allies.

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Country	GDP (Millions of U.S. Dollars)	
China	\$10,866,444	
Russia	\$1,326,015	
Iran	\$425,326	
	\$12,617,785	
United States	\$17,946,996	
Japan	\$4,123,258	
Germany	\$3,355,772	
United Kingdom	\$2,848,755	
France	\$2,421,682	
	\$30,696,463	

<sup>108</sup> These costs are through FY 2011. See Andrew Feickert, Mine-Resistant, Ambush Protected (MRAP) Vehicles: Background and Issues for Congress (Washington, DC: Congressional Research Service, January 18, 2011), pp. 3–4; and Peter Cary and Nancy Youssef, "Pentagon Spends Billions to Get Roadside Bombs, With Little Success," McClatchy Newspapers, March 27, 2011.

<sup>&</sup>quot;U.S. Collective Defense Arrangements," United States Department of State, accessed September 19, 2016, available at http://www.state.gov/s/l/treaty/collectivedefense/.

<sup>110 &</sup>quot;GDP (current US\$)," World Development Indicators, The World Bank, as of 2016, available at http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

But America's economic advantages are not measured solely by its GDP, raw material reserves, or access to finances. As Walter Russell Mead notes:

The greatest wealth of countries like the United States and Great Britain is not their mineral deposits or their agricultural land. It is not the money that they have in the bank. It is the mentality and habits of the nation at large. These are peoples accustomed to governing themselves, accustomed to promoting enterprise, ready to join in spontaneous and private activities of all kinds—but also accustomed to an ordered liberty whose roots now are many centuries old. This human and social capital is by far the most valuable to have—and by far the hardest to get.<sup>111</sup> [Emphasis added]

This human and social capital has enabled the United States to fashion and benefit from a dynamic and entrepreneurial economic system that facilitates "creative destruction," moving capital and labor into areas where they can be the most productive. As Mead observes, "The economic dynamism of the United States remains the key to its global position, and anything that threatens that dynamism poses, potentially, a mortal threat to American power." <sup>112</sup>

The U.S. system of market capitalism combined with human and social capital may prove superior to China's "state capitalism," and has clear advantages over Russia's corruption-riddled economic system. Yet there are signs that the U.S. system is hobbled, at least somewhat, by "crony capitalism" that not only subverts free-market principles but also generates income inequalities. This has led to the U.S. economic system coming under growing pressure to affect a greater level of wealth redistribution based on factors other than economic efficiency. Moreover, most of the developed world countries, including all major U.S. allies, have taken on large debt and large unfunded (or underfunded) liabilities, primarily in the form of entitlement obligations. 115

- 11 Walter Russell Mead, *God and Gold* (New York: Knopf, 2007), p. 329.
- 112 Ibid., p. 349.
- 113 State capitalism can be described as an economic system in which the state pursues commercial economic activity by owning and managing business enterprises. In Marxist terms, state capitalism involves state ownership of firms that seek to earn profits by extracting surplus value from capital and labor. "The Rise of State Capitalism," *The Economist*, January 21, 2012, available at http://www.economist.com/node/21543160. China is today's leading proponent of state capitalism, which is also practiced in various forms in countries as diverse as Brazil and Singapore. Crony capitalism refers to a situation where close relationships between business leaders and government officials distorts the workings of a free-market economy through favoritism in the distribution of government grants and subsidies, tax advantages, and other forms of government intervention. State and crony capitalism are not mutually exclusive. By one ranking, Russia leads all other states in crony capitalism, while China ranks 11th, and the United States 16th. Developing countries account for 43 percent of GDP but are responsible for 65 percent of "crony wealth," indicating that more advanced economies are in general less prone to the phenomenon. See "The Party Winds Down," *The Economist*, May 7, 2016, available at http://www.economist.com/news/international/21698239-across-world-politically-connected-tycoons-are-feeling-squeeze-party-winds.
- 114 Vivekinan Ashok, Ilyana Kuziemko, and Ebonya Washington, Support for Redistribution in an Age of Rising Inequality: New Stylized Facts and Some Tentative Explanations (Washington, DC: Brookings Institution, March 9, 2015), available at https://www.brookings.edu/wp-content/uploads/2016/07/2015a\_ashok.pdf.
- 115 Matthew C. Klein, "Welfare Spending Across the OECD," *Alphaville, The Financial Times*, November 27, 2014, available at https://ftalphaville.ft.com/2014/11/27/2053392/welfare-spending-across-the-oecd/.

The long-term consequences of these trends for the United States and those of its principal allies will likely be far greater and more enduring than the traditional program funding mismatches that typically plague defense planners. Indeed, substantial downward pressure on U.S. and ally defense funding seems likely, if not inevitable.

# **Demography/Manpower**

Demographic trends have important second-order implications for the military balance. A country's demographic profile is an important factor in determining economic growth, the allocation of material resources, and the manpower available for military service.

From a demographic perspective, America's competitive position is strong and likely to improve significantly relative to the revisionist powers over the next several decades. The United States currently possesses a large, technically literate manpower pool relative to the revisionist powers, save for China. When U.S. allies and partners are included, its standing relative to the revisionist powers improves significantly. Further enhancing the U.S. position, India, a traditional rival of China, and prospective U.S. security partner, has both a large population and a healthy demographic profile.<sup>116</sup>

Although it is the world's most populous state, China is not without its problems. Its population is aging. Unlike the world's advanced economic powers, China is growing old before it achieves status as a fully developed economic power. A growing elderly population and a shrinking workforce will increasingly act as a brake on the country's economic growth. China also confronts potentially serious consequences from a male-biased gender ratio imbalance. There is some evidence that societies with a surplus of young adult males suffer from greater levels of crime and internal disorder. This could lead the CCP to become more inwardly

India and the United States have also gradually moved to improve their security ties. The White House, "Joint Statement: the United States and India: Enduring Global Partners in the 21st Century," The White House, June 7, 2016, available at https://www.whitehouse.gov/the-press-office/2016/06/07/joint-statement-united-states-and-india-enduring-global-partners-21st.

<sup>117</sup> Nancy E. Riley, "China's Population: New Trends and Challenges," Population Bulletin, June 2004; Nicholas Eberstadt, "Power and Population in Asia," Policy Review, February—March 2004; and Wenmeng Feng, The Silver and White Economy: The Chinese Demographic Challenge, Local Economic and Employment Development (LEED) Working Paper Series (Paris: Organization for Economic Cooperation and Development, 2012.

<sup>118</sup> Feng Wang, "Racing Towards the Precipice," *China Economic Quarterly*, June 2012, available at https://www.brookings.edu/articles/racing-towards-the-precipice/.

<sup>&</sup>quot;The Worldwide War on Baby Girls," The Economist, March 4, 2010, available at http://www.economist.com/ node/15636231.

focused, or attempt to redirect this internal source of tension outward toward enemies, be they real or imagined.<sup>120</sup>

U.S. allies among the world's economically advanced democracies also confront a disadvantage with respect to total fertility replacement (TFR) rates in parts of the developing world. Simply put, as a country advances economically its TFR tends to decline. Generally speaking, women in the developing world tend to have significantly more children than those in advanced economic states. This has the potential to create a world of "rich millions" and "poor billions." If so, young adults in the developing world with poor economic prospects could provide a large and willing pool of potential recruits for revisionist rivals—especially radical Islamist groups—enhancing their ability to wage proxy warfare against the United States and its allies. As the rise of radical Sunni Islamism shows, societies with relatively large numbers of young people reaching maturity with few prospects for gainful employment or hope for a better future can prove fertile recruiting ground for groups, or states, seeking to wage modern irregular warfare. This phenomenon, however, works both ways and may be a source of potential advantage for the United States.

# **Military Technical**

Over the first decade or so following the Cold War, the United States enjoyed large advantages in a number of key military competitions relative to the revisionist powers. In recent years, however, these U.S. advantages have diminished, in some cases significantly. Trends in several areas remain unfavorable, and some U.S. advantages risk becoming "wasting assets."

The revisionist powers' efforts to challenge U.S. military dominance by developing capabilities designed to avoid the American military's strengths while exploiting its weaknesses are paying off. This is particularly the case in two key areas of the military competition: precision

- 120 Zachery Keck, "Anti-China Rhetoric isn't Causing Problems, China Is," The Diplomat, July 15, 2014, available at http://www.thediplomat.com/2014/07/anti-china-rhetoric-isnt-causing-problems-china-is/. Russia' demographic posture is worse than China's. As one Russian source admits, "The Russian government has attempted to project the image of revived greatness to the world. But Russia's declining demographic health suggests that domestic realities will sooner or later serve to undermine the Kremlin's global ambitions. They also provide a compelling argument that a Russian return to great power status needs to begin at home." Ian Berman, "Mother Russia is Still Struggling with Demography," Moscow Times, October 3, 2016, available at https://themoscowtimes.com/articles/mother-russia-is-still-struggling-with-demography-55569.
- 121 This is not to say that radical Islamist groups are composed entirely of young people motivated by these factors. A significant number—especially among the leadership—are motivated by a particular interpretation of the Muslim faith and their obligations to that faith. See Patrick Goodenough, "Former Islamist: Ideology and Theology, Not Grievances or Poverty, Produce Radicalization," CNS News, April 27, 2016, available at http://www.cnsnews.com/news/article/patrick-goodenough/former-islamist-ideology-and-theology-not-grievances-or-poverty.
- 122 The United States has supported proxy forces with varying degrees of success in recent decades, especially in the 1980s when aid was provided to such groups as the radical Islamist Mujahideen (including Osama bin-Laden) in Afghanistan; the Contras in Nicaragua; Jonas Savimbi and the National Union for the Total Independence of Angola (UNITA) in Angola; and, most recently, the Kurds in Iraq.
- 123 For a discussion of this issue, see Andrew F. Krepinevich, "The Pentagon's Wasting Assets," Foreign Affairs, July–August, 2009.

warfare, which relies on the combination of precision-guided munitions (PGM) and associated battle networks, and the proliferation of nuclear weapons to developing world states along the Eurasian periphery. It is a natural consequence of the diffusion of military technology and capabilities and the desire, particularly on the part of the revisionist powers, to offset U.S. military advantages.

# **Eroding Sources of U.S. Competitive Advantage**

Upon closer examination, the sources of current U.S. competitive advantage can be summarized as follows:

**Long-range precision strike:** The United States confronts a declining advantage in identifying and striking targets over great distances with PGMs and low collateral damage. China represents the pacing threat.

*Global power projection:* The United States can project power quickly and over long distances along the Eurasian periphery. The rise of A2/AD capabilities, however, presents a clear challenge to current U.S. means and methods of conducting such operations. Again, China is the pacing threat.

**Air superiority:** The United States has enjoyed local air superiority in conflicts extending back over the last half century. The development and diffusion of A2/AD capabilities, including advanced integrated air defense systems (IADS), finds the competition in this area growing stiffer in all three theaters. <sup>124</sup> Perhaps more important, all three revisionist powers have growing inventories of ballistic and cruise missiles capable of threatening forward U.S. air bases and aircraft carriers, as well as U.S. surface combatants. China and Russia pose the most formidable challenge to U.S. air superiority.

**Sea control:** The United States has exercised control over the world's blue water seas since the Cold War's end, due in large part to its preeminence in undersea warfare. Today all three revisionist powers are improving their maritime forces, with China leading the way with respect to surface combatants while Russia remains the pacing threat for submarines.<sup>125</sup>

**Ground operations**: Ground combat operations were at the core of U.S. defense planning during the Cold War. The effort paid off, as American mechanized air—land operations produced quick, lopsided victories in both Gulf wars. U.S. ground forces can defeat any comparatively sized foe in traditional (conventional) combined arms mechanized warfare. The Western Pacific Theater of Operations, however, is primarily an air and maritime theater, while the region's archipelagos offer little opportunity for the kind of warfare U.S. ground

<sup>124</sup> John Stillion, Trends in Air-to-Air Combat: Implications for Future Air Superiority (Washington, DC: Center for Strategic and Budgetary Assessments, 2015).

<sup>125</sup> The Russian Severodvinsk-Class SSNs are far more capable of any attack submarine in the People's Liberation Army Navy. I am indebted to Captain (Ret.) Karl Hasslinger for this observation.

forces perfected for Europe. Moreover, there are clear signs that America's rivals are abandoning "traditional" land warfare operations centered around heavy mechanized forces.

Recent Russian operations in eastern Ukraine have demonstrated new and innovative forms of land warfare that find disaggregated ground forces operating in tandem with A2/AD forces. 126

**Special operations:** U.S. Special Forces have unmatched experience and an ability to engage in a wide variety of special operations around the world. Both Russia and Iran, however, are demonstrating impressive capabilities in this area. <sup>127</sup>

*Cyber operations:* The United States is a world-class competitor in various forms of cyber warfare. The barriers to this form of competition are low, however, and the three principal revisionist powers, as well as North Korea and ISIS, have shown impressive competence in this form of warfare. Both China and Russia are apparently capable of competing on a scale and level of sophistication that would rank them as "peer" competitors of the United States.<sup>128</sup>

Large-scale complex military operations: The United States has an unmatched ability to undertake highly integrated yet highly dispersed joint and combined military operations, to include a high proficiency in "cross-domain" operations. The emergence of revisionist state A2/AD capabilities is a clear indicator that they are becoming more proficient in linking integrated battle networks with extended-range strike capabilities to field A2/AD architectures that increase the cost of U.S. power projection operations dramatically.

Strategic strike: Strategic strike—the ability to strike promptly, directly, and with a high degree of effectiveness the foundation of the enemy's war-making potential (both material and moral)—is no longer the exclusive province of nuclear weapons, although they remain unrivaled in their ability to perform this mission. Attacks employing conventional precision weapons and cyber payloads have the potential to neutralize or destroy promptly and with high confidence a significant number of targets that once could only be accomplished with nuclear weapons. As a consequence of its large nuclear arsenal and range of delivery systems; its ability to execute long-range conventional precision strikes on a large scale; its advanced air and missile defenses; and its reputation for high proficiency in cyber operations, the United States has an unmatched ability to conduct strategic strike operations<sup>130</sup> on a large scale and with a high degree of flexibility. That said, rivals are looking to exploit potential gaps in U.S.

<sup>126</sup> Phillip Karber and Joshua Thibeault, "Russia's New-Generation Warfare," Army Magazine 66, no. 6, June 2016, available at http://www.armymagazine.org/2016/05/13/russias-new-generation-warfare/.

Mark Galeotti, "The Three Faces of Russian Spetsnaz in Syria," War on the Rocks, March 21, 2016, available at http://www.warontherocks.com/2016/03/the-three-faces-of-russian-spetsnaz-in-syria/; and "Iran: Special Operational Forces," Jane's Amphibious and Special Forces, December 14, 2016.

<sup>128</sup> Dave Majumdar, "The U.S. Military's Greatest Fear: Russia and China are Catching up Fast," The National Interest, May 17, 2016, available at http://www.nationalinterest.org/blog/the-buzz/the-us-militarys-greatest-fear-russia-china-are-catching-16242.

<sup>129</sup> Bryan Clark and Mark Gunzinger, Winning the Salvo Competition: Rebalancing America's Air and Missile Defenses (Washington, DC: Center for Strategic and Budgetary Assessments, 2016).

<sup>130</sup> Mark Gunzinger, Sustaining America's Strategic Advantage in Long-Range Strike (Washington, DC: Center for Strategic and Budgetary Assessments, 2010), p. 1.

capabilities. Russia, in particular, is seeking to offset the U.S. advantage by developing and fielding advanced design nuclear weapons and delivery systems, and by violating the INF Treaty.<sup>131</sup> Although China's strategic forces are reported to be modest compared to those of The United States and Russia, Beijing has shown little indication to provide transparency on its capabilities, creating uncertainty regarding its true force posture and intentions. What is clear is that China's PLA is modernizing the full range of its strategic forces.<sup>132</sup>

Operational experience and high-fidelity training: In the course of their rivalries great powers—and minor powers and non-state groups as well—have employed proxy forces, often waging irregular warfare, to advance their interests. Today's U.S. military has well over a decade of experience combatting various forms of irregular warfare, as well as conducting reconnaissance and strike operations in permissive environments. It also possesses a high-fidelity training enterprise that enables its forces to undertake new operations with a high degree of "first battle" competence. The U.S. primacy is being challenged here as well, as Russian and Iranian special forces and proxies gain experience in Europe and the Middle East, respectively. ISIS and related groups, such as Hezbollah, also have developed extensive first-hand experience in advanced irregular warfare.

**Space:** U.S. forces have an unmatched ability to use near real-time information supplied by space assets to support a wide range of missions. The growth of a range of ASAT capabilities, both kinetic and non-kinetic, is placing this advantage at risk. China is leading the way in developing a range of ASAT capabilities and in expanding its ability to use space-based systems to enhance the effectiveness of its military forces. <sup>135</sup>

**C4ISR:** The U.S. military has a clear lead in its ability to gather, process, and distribute a wide variety of information regarding enemy and friendly activities and capabilities. As in many other key areas of the military competition, however, the U.S. advantage is declining and is at risk of eroding precipitously. This is because many U.S. C4ISR systems are designed to perform in non-contested environments. Yet the three revisionist powers have and are

- 131 Michael R. Gordon, "U.S. Says Russia Tested Missile, Despite Treaty," New York Times, January 19, 2014, available at http://www.nytimes.com/2014/01/30/world/europe/us-says-russia-tested-missile-despite-treaty.html?hp&\_r=o.
- 132 Christopher Twomey, "China's Offensive Missile Forces," Testimony before the U.S.-China Economic and Security Review Commission, April 1, 2015, p. 59, available at http://origin.www.uscc.gov/sites/default/files/transcripts/April%2001,%20 2015\_Hearing%20Transcript\_o.pdf.
- 133 The Cold War is particularly notable for the use of proxy forces, to include communist-backed "wars of national liberation" in countries such as Bolivia, Greece, Indochina, Malaya, and the Philippines as well as U.S.-sponsored "freedom fighters" in Afghanistan, Nicaragua, and Angola. For an overview of the topic, particularly as it pertains to guerrilla warfare, see Robert B. Asprey, *War in the Shadows* (New York: William Morrow and Company, 1994), pp. 406–419, 491–543, 570–625, 712–997, and 1203–1212. More recently, one finds Iran engaging in various forms of proxy warfare, employing groups such as Hamas, Hezbollah, and the Mahdi Army, while Russia has supported irregular forces in eastern Ukraine that have been dubbed the "Little Green Men."
- 134 Barry D. Watts, U.S. Combat Training, Operational Art, and Strategic Competence: Problems and Opportunities (Washington, DC: Center for Strategic and Budgetary Assessments, 2008), p. 2.
- 135 Sam LaGrone, "Pentagon: China developing New Anti-Satellite Weapons, Jammers," *USNI News*, May 11, 2015, available at https://www.news.usni.org/2015/05/11/pentagon-china-developing-new-anti-satellite-weapons-jammers.

continuing to develop electronic warfare and related capabilities that could severely contest U.S. C4ISR operations.

Defense industrial base: The U.S. military derives considerable advantage from its defense industrial base (DIB), which has an unmatched ability to produce a wide array of capabilities and integrate them at high levels of sophistication. The DIB continues to shrink, however, and its ability to introduce new capabilities quickly or to surge production of existing equipment is increasingly suspect, in no small measure owing to a large and inefficient Pentagon acquisition corps burdened by Federal acquisition regulations that, while well intentioned, generate far more in compliance costs than they save through attempts to exercise oversight and achieve "efficiencies." Both China and Russia possess impressive DIBs of their own. Thanks in part to the large, sustained increases in China's defense budget, technology transfers from Russia, and industrial espionage against the United States and other advanced states, the PLA is rapidly closing what was once a formidable gap between its industrial base and that of the United States.<sup>136</sup>

# The Shifting Character of the Competition

Not only are traditional sources of U.S. military advantage in many cases eroding, but the character of the competition itself is also changing. The great power enemies that posed the greatest challenges to U.S. security in the twentieth century fielded militaries that were, on the whole, similar to the United States armed forces<sup>137</sup> The military capabilities of current and emerging challengers, however, are in many ways different from those of the American military, emphasizing modern irregular warfare, a wider range of nuclear weapons—such as EMP weapons and those with very low yields—and novel combinations of advanced military technologies. In short, there are more asymmetries between the U.S. armed forces and the forces of its revisionist rivals today than was the case in the past century.

This is clearly evident in the way advanced military technologies and weapons of mass destruction are proliferating. Their spread finds the United States losing its quarter-century near-monopoly in precision warfare as the revisionist powers develop and field A2/AD systems and capabilities that focus less on power projection than on denying access. This phenomenon is most pronounced in the Western Pacific, with China the pacing threat.

The U.S. military is also losing its nuclear monopoly with respect to countries in the developing world, specifically in South Asia (India and Pakistan) and the Western Pacific (North Korea). There is increasing risk that proliferation will occur in the Middle East, as Iran exploits the JCPOA to establish itself as a threshold nuclear state. Should that occur, there is a significant risk that the region would experience a proliferation cascade, with Saudi Arabia

<sup>136</sup> OSD, Military and Security Developments Involving the People's Republic of China, 2016, Annual Report to Congress (Washington, DC: DoD, April 2016), pp. 78–80.

<sup>137</sup> Andrew F. Krepinevich et al., Strategy for the Long Haul: The Challenges to U.S. National Security (Washington, DC: Center for Strategic and Budgetary Assessments, 2008), p. 2.

and Turkey, and perhaps others as well, moving to join the nuclear club.<sup>138</sup> Importantly, while the United States has come to view nuclear weapons as useful only in deterring the use of nuclear weapons by others, this perspective does not appear to be shared by other nuclear powers, save for France and Great Britain.

The proliferation of advanced military capabilities, combined with the low barriers to entry to competing at a high level in several emerging warfare areas—such as in cyber and biological warfare—has produced a "democratization of destruction" that finds even small groups having the potential to inflict damage far exceeding what comparably sized groups were able to do even a generation ago. <sup>139</sup> As evidenced by the 2006 Second Lebanon War and recent operations conducted by Russia's "Little Green Men," the distinction between the lethality of conventional and irregular forces is becoming less clear. <sup>140</sup>

The "blurring" that is occurring between conventional and irregular warfare is being matched by the progressively narrowing "firebreak" between conventional and nuclear warfare. This is

- 138 Robert Einhorn and Richard Nephew, The Iran Nuclear Deal: Prelude to Proliferation in the Middle East? (Washington, DC: Brookings Institution, 2016), p. vi.
- 139 Andrew F. Krepinevich, "Get Ready for the Democratization of Destruction," Foreign Policy, February 15, 2011, available at http://www.foreignpolicy.com/2011/08/15/get-ready-for-the-democratization-of-destruction/.
- 140 Russian military operations in Ukraine have been characterized by the widespread use of unmanned aerial vehicles for operational intelligence and tactical targeting. Russian artillery and multiple-rocket launchers employ advanced munitions to strike targets identified by unmanned aerial vehicles (UAV) promptly. Such strikes have reportedly produced 85 percent of all Ukrainian casualties. Such attacks make it difficult for light infantry fighting vehicles to survive. This has led to a renewed emphasis on heavy armor-modern main battle tanks. Nevertheless, it is not heavy armor, but special forces and irregular forces that are being employed increasingly as the ground maneuver force, rather than "traditional" mechanized formations (although deep armored raids are employed on a nonlinear battlefield). Russian irregular forces are benefitting from superior body armor and body armor-piercing ammunition, combined with night vision equipment and snipers. See Phillip A Karber, "Lessons Learned" from the Russo-Ukrainian War: Personal Observations, draft (Vienna, VA: The Potomac Foundation, July 8, 2015), available at https://prodev2go.files.wordpress.com/2015/10/rus-ukr-lessons-draft. pdf; Mary Ellen Connell and Ryan Evans, Russia's "Ambiguous Warfare" and Implications for the U.S. Marine Corps (Arlington, VA: CNA, May 2015), available at https://www.cna.org/CNA\_files/PDF/DOP-2015-U-010447-Final.pdf; Can Kasapoglu, Russia's Renewed Military Thinking: Non-Linear Warfare and Reflexive Control, Research Paper Number 121 (Rome: NATO Defense College, November 2015); and Peter Pomerantsev, "Brave New War," The Atlantic, December 29, 2015, available at http://www.theatlantic.com/international/archive/2015/12/war-2015-china-russia-isis/422085/. It is also worth noting the use of irregular ground forces armed with relatively advanced weaponry by Hezbollah in the 2006 Second Lebanon War. In the course of that 34-day conflict with the Israeli Defense Forces (IDF), Hezbollah's forces fought a larger, better-equipped force nearly to a standstill with a spirited and innovative defense aided by numerous guided defensive weapons (such as anti-tank guided missiles, or ATGMs). At the time of the ceasefire, 10,000 IDF soldiers had been held off by roughly 3,000 Hezbollah militiamen. The IDF suffered more than 120 killed and 600 wounded, while killing only 148 of the enemy in ground combat. As one observer remarked, "In one day in 1982 [the IDF] reached Beirut; here, in six or seven days, they couldn't go more than a few miles." Perhaps most impressively, Hezbollah sustained the volume of its rocket fire, firing over 4,000 of its estimated 12,000 non-precision rockets into Israel during the war, including a salvo of some 250 weapons in the war's final hours. As Hezbollah's secretary-general Hassan Nasrallah stated after the war, "The resistance withstood the attack and fought back . . . it was not a regular army but was not a guerrilla [army] in the traditional sense either. It was something in between. This is the new model." Matt Matthews, We Were Caught Unprepared: The 2006 Hezbollah-Israeli War (Fort Leavenworth, KS: U.S. Army Combined Arms Center Combat Studies Institute Press, 2007), pp. 1, 38-40, 43-56; Frank G. Hoffman, Conflict in the 21st Century: The Rise of Hybrid Wars (Arlington, VA: Potomac Institute for Policy Analysis, December, 2007), p. 22; and David E. Johnson, Military Capabilities for Hybrid War: Insights from the Israel Defense Forces in Lebanon and Gaza (Santa Monica, CA: RAND Corporation, 2010).

occurring as precision-guided weaponry and cyber payloads become more capable of substituting for nuclear weapons under certain conditions—and as nuclear powers such as Russia design low-yield nuclear weapons to offset their vulnerability to precision strategic warfare.<sup>141</sup>

The military competition is also shifting in the sense that it is becoming more intense in relatively new warfare domains, to include space, cyberspace, and the seabed. The speed at which military engagements occur appears almost certain to increase. Over the past 25 years, the U.S. military has developed battle networks that have significantly compressed the time between when distant and mobile targets are detected and when they are engaged. New forms of warfare (cyber war in particular) combined with the prospective introduction of new weaponry (such as directed energy and hypersonic weapons) are likely to compress the timelines along which military operations are being conducted even further. Thus warning times will be reduced, increasing the opportunities to achieve surprise, thereby eroding crisis stability.

The rapid pace of change in the character of warfare shows no signs of slowing anytime soon. Technology continues advancing along a broad front. Among the most promising technologies from a military perspective are those associated with AI, big data, the biological and human behavioral sciences, directed energy, and robotics. Alone or in combination, they have the potential to produce dramatic shifts not only in the conduct of military operations but also in the military balance.

As the preceding discussion suggests, although the challenges confronting the United States are far greater in scale than any since the end of the Cold War, they are also shifting in both form and location from those presented by the Soviet Union, or, more recently, radical Islamist terrorist groups. Therefore, The United States will require not only a larger military than currently planned but also a significantly different kind of military to achieve its objectives at a reasonable level of risk.

Given the clash of interests between the world's leading democracies and the revisionist powers, and the latter's' growing military capabilities, the probability of conflict occurring between the United States and one or more of the revisionist powers is far from trivial. Should war occur, one should not assume it would produce Armageddon, or that it would be resolved quickly.

The following are some observations as to how warfare appears to be changing across the spectrum of conflict, from irregular to strategic warfare. As will become clear, it is increasingly difficult to segment the various forms of war, particularly between irregular and conventional war, and conventional and strategic warfare.

<sup>141</sup> CIA, Office of Transnational Issues, "Evidence of Russian Development of New Subkiloton Nuclear Warheads," Intelligence Memorandum 2000-011X, August 30, 2000, p. 1, available at http://www.foia.cia.gov.

# A2/AD and Conventional Warfare

Recent years have witnessed rapidly increasing challenges to the U.S. military's "muscle" (forward bases; major surface combatants) and "nervous system" (battle networks) in the form of A2/AD capabilities. China—and to a lesser extent, Russia and, to a limited degree, Iran—are developing sophisticated networks of extended regional surveillance and target acquisition sensors; advanced integrated air defenses; anti-satellite weapons; surface warships and attack submarines armed with anti-ship cruise missiles (ASCM); extended-range ballistic missiles and strike aircraft; electric warfare capabilities; and an array of cyber munitions.

The Chinese are pursuing these capabilities with the objective of denying U.S. forces the ability to operate at acceptable cost from major forward bases such as Kadena on Okinawa and Anderson on Guam, as well as from U.S. and allied maritime platforms out to the second island chain. Chinese military writings indicate that these capabilities are intended to fracture the U.S. military's battle networks, and strike both U.S. and allied forward bases and naval forces at extended ranges. 142

Should the United States and its allies fail to take effective steps to offset China's arms buildup, East Asian waters will slowly but surely become a no man's land for U.S. and allied surface warships, to include aircraft carriers with their short-range strike aircraft. The same is true of the large air bases in the region that host the U.S. Air Force's short-range strike aircraft. If the Western Pacific military balance continues to shift in its favor, Beijing might resolve outstanding security issues with Japan, Taiwan, and other states—such as those with claims on South China Sea Islands—through coercion, if not aggression. In short, the United States risks witnessing the progressive Finlandization of an area of vital U.S. interest.

A similar phenomenon is occurring in Eastern Europe, where Moscow is developing an A2/AD "bubble" with Russian characteristics extending across NATO's frontline states, stretching from the Baltic States in the north to the Balkan states in the south. As in the Western Pacific, the focus is on shifting the military balance—in this case in Russia's favor—not by seeking to imitate U.S. forces and methods of operation, but by leveraging advanced technologies and military systems in new ways that also include advanced hybrid ground forces and nuclear capabilities. Similar to China's approach in the Western Pacific, by raising the cost of reinforcing NATO's frontline states, Russia may be able to shift the military balance sufficiently in its favor to enable Moscow to engage in successful acts of coercion and subversion against its

<sup>142</sup> Eric Heginbotham et al., *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power* 1996–2017 (Santa Monica, CA: RAND Corporation, 2015), pp. 45–55.

<sup>143</sup> For a discussion of the concept of a maritime no man's land, see Andrew F. Krepinevich, *Maritime Competition in a Mature Precision-Strike Regime*, (Washington, DC: Center for Strategic and Budgetary Assessments, 2015), pp. 95–121.

<sup>144</sup> Heginbotham et al., The U.S.-China Military Scorecard, pp. 54-55.

<sup>145</sup> Krepinevich, "China's 'Finlandization' Strategy in the Pacific." See also Bonnie S. Glaser, Conflict in the South China Sea, Contingency Planning Memorandum Update (New York: Council on Foreign Relations, April 2015), available at http://www.cfr.org/asia-and-pacific/conflict-south-china-sea/p36377.

former satellite states. The same challenge, albeit in somewhat different form and on a smaller scale, is emerging in the Persian Gulf, where Iran is pursuing its own A2/AD capabilities while gaining U.S. acceptance of its march toward nuclear threshold state status.

Should A2/AD become the "new normal" in warfare, it could seriously shift the military balance along the Eurasian periphery to the disadvantage of the United States. This is a matter of strategic significance. The U.S. military must find a way to counter the shift in the competition, either by developing its own A2/AD capabilities and ways of operating in this environment or by developing the means and methods to restore its freedom of maneuver and ability to project sufficient power at an acceptable cost.

With regard to the former—operating effectively in an A2/AD environment—the U.S. military will have to abandon outdated power projection concepts. These concepts rely heavily on employing large surface combatants for forward presence and deterrence; deploying air and ground forces through large airbases and ports; and employing strike operations that emphasize short-range aircraft and missiles operating from close-in land and sea bases. In an A2/AD environment, range, stealth, and persistence will be more important, along with dispersion, mobility, and hardening. Projecting power in such a highly contested environment will place a premium on projecting power with highly distributed forces capable of operating independently of main air and seaports of debarkation. That said, military systems and munitions that operate at long range are typically substantially more expensive than similar short-range capabilities, and allies are far better assured of U.S. resolve by American forces based nearby than by those operating "over the horizon." Therefore, the U.S. military will also have to develop the ability to sustain forces forward even in the face of rival A2/AD forces.

#### The Global Commons

A major factor enabling the U.S. military to project power abroad, and to sustain forces once they are operating in an overseas combat zone, is its access to and ability to navigate through the global commons: international waters and air space as well as space and cyberspace. Maintaining access to the global commons is as important to the United States security as maintaining access to the seas was to Great Britain's survival during its period as a global power. Access to the commons not only enables power projection and sustainment, but it also underwrites U.S. and ally prosperity in particular, and global economic growth in general. Following Soviet Russia's collapse nearly two decades ago, the United States has enjoyed generally secure and uncontested access to the global commons, with the notable exception of cyberspace. This favorable situation has been eroding to the point where U.S. assured access to space and cyberspace is clearly being contested, while its access to the seas and security of key undersea assets is no longer a given.

At sea and in the air, the rise of anti-access/area-denial capabilities, both among state and non-state entities, threatens to make key straits and coastal waters prohibitively risky areas in which to operate, along with the airspace under an enemy's A2/AD "bubble." Offshore oil and

natural gas facilities, related infrastructure, and undersea fiber optic cables may be particularly vulnerable.  $^{146}$ 

In space, America's armed forces rely heavily on military and commercial satellites for critical capabilities. In recent years, the Chinese have demonstrated the ability to neutralize or destroy satellites in low Earth orbit. As China's lunar exploration program matures, Beijing will likely acquire the ability to attack satellites even in geosynchronous orbit. <sup>147</sup> The United States faces a strategic choice of whether to accept this vulnerability and all it implies, or explore options to maintain assured access to space, or to develop alternative methods of providing the capabilities currently rendered by satellite systems.

As for cyberspace, information technologies (IT) and associated networks permeate every aspect of America's military operations, from training to logistics, from command and control to targeting and weapons guidance. It underlies, enables, and binds together all aspects of the U.S. military's ability to project and employ military power. If the U.S. military possesses a single point of failure at the strategic or operational level, it is likely in this area.

As the U.S. military's dependence on IT has grown, so too has its vulnerability to disruptions, especially disruptions to battle networks. America's economic infrastructure, where everything from finance and transportation to electric generation depends upon the proper functioning of cyber networks that utilize the Internet, is almost certainly vulnerable as well.<sup>148</sup> It is unclear how devastating an all-out cyber attack on the U.S. military or America itself would be. Some have speculated, however, that cyber attacks with prolonged catastrophic effects are possible.<sup>149</sup> Yet, most of the military systems fielded to defend the American homeland would be of little value in preventing cyber attacks from causing substantial damage to U.S. economic infrastructure. Thus, even in the event of a war with a minor power such as Iran or North Korea, the sanctuary status enjoyed by the U.S. homeland from direct enemy attack has already become a thing of the past.

- 146 Andrew F. Krepinevich, "The Terrorist Threat Beneath the Waves," *Wall Street Journal*, November 2, 2011, available at http://www.wsj.com/articles/SB10001424052970203687504577005811739173268.
- 147 Sydney J. Freedberg Jr., "Pentagon Reports on China's Satellite Killers," *Breaking Defense*, May 11, 2015, available at http://www.breakingdefense.com/2015/05/pentagon-reports-on-chinas-satellite-killers/.
- 148 Quan Hai T. Lu, "Cyber Attacks: The New WMD Challenge to Interagency," InterAgency Journal 6, no. 2, Spring 2015, available at http://www.thesimonscenter.org/wp-content/uploads/2015/05/IAJ-6-2-Spring-2015-48-57.pdf. See also Andrew F. Krepinevich, Cyber Warfare: A "Nuclear Option"? (Washington, DC: Center for Strategic and Budgetary Assessments, 2012), pp. 39-77.
- 149 As used in this report, the term "catastrophic effects" is defined as those that produce "extreme misfortune" in the targeted state. They may (or may not) produce its "utter overthrow or ruin." They are, however, concentrated in time and very difficult to remediate. In the case of a catastrophic cyber attack against the United States resulting in "extreme misfortune," for example, recovery would require the country to undertake a major and perhaps fundamental shift in the way it is organized and functions such that it incurs enormous (and perhaps sustained) costs. For an elaboration on this definition, see Krepinevich, *Cyber Warfare*, pp. 15–17. See also Paul Cornish, *The Vulnerabilities of Developed States to Economic Cyber Warfare* (London: Chatham House, 2011). The definition of "catastrophic event" is derived from Webster's dictionary, which defines it as "a momentous tragic event ranging from extreme misfortune to utter overthrow or ruin." See definition at https://www.merriam-webster.com/dictionary/catastrophic.

#### **Advanced Irregular Warfare**

The challenges posed to the United States, its allies and partners by non-state combatants or by revisionist power forces engaged in "gray zone" or hybrid warfare are likely to become increasingly formidable. Advanced irregular warfare is characterized by small units, armed primarily with high-end tactical weapons (such as G-RAMM), and unmanned aerial vehicles. Their effectiveness can be enhanced significantly by modern communications, to include social media, 150 to influence public opinion and attract recruits.

Although, as in the past, the United States has sought to divorce itself from certain forms of warfare, it has been unable to do so. <sup>151</sup> As described above, the last decade has seen irregular forces acquire progressively greater combat power. Hezbollah showed what modern irregular forces could do during the Second Lebanon War<sup>152</sup> Russia built upon the lessons of this war in its operations in Eastern Ukraine, where its Little Green Men forces have combined elements of conventional and irregular warfare together to boost their military effectiveness. Today the Russian military is the current leading practitioner of this form of warfare. <sup>153</sup> China is also waging gray zone warfare as a means of advancing its aggressive agenda in the Western Pacific. For example, large numbers of Chinese "fishing" boats have periodically intruded on the territorial waters of states where Beijing has political and economic interests.

There are two reasons why the trend toward advanced forms of irregular warfare is likely to persist. First, they offer the revisionist powers—as well as the United States—opportunities to

150 Sergey Chekinov, head of the General Staff's Centre for Military-Strategic Research and a department head at the Russian General Staff Academy notes:

In its new technological format, the indirect action strategy will draw on, above all, a great variety of forms and methods of non-military techniques and non-military measures, including information warfare to neutralise adversary actions without resorting to weapons (through indirect actions), by exercising information superiority, in the first place. . . . Beyond a shadow of a doubt, the aggressive side will be first to use nonmilitary actions and measures as it plans to attack its victim in a new-generation war. With powerful information technologies at its disposal, the aggressor will make an effort to involve all public institutions in the country it intends to attack, primarily the mass media.

Sergey Chekinov and S. A. Bogdanov, "The Nature and Content of a New-Generation War," *Military Thought*, no. 4, 2013. Cited in Keir Giles, *Russia's "New" Tools for Confronting the West: Continuity and Innovation in Moscow's Exercise of Power* (London, The Royal Institute of International Affairs, Chatham House, March 2016), p. 10.

- 151 Despite efforts at isolating itself from global political affairs before and after the First World War, the United States found itself fighting in both world wars. After the Korean War, there were vows of "No More Koreas," reflecting a desire to avoid conventional war in the developing world. Yet U.S. forces fought in both Gulf Wars against Iraq. Similarly, the "No More Vietnams" pledge was progressively discarded with operations in El Salvador, Panama, Rwanda, Haiti, the Balkans, and, finally, Afghanistan and Iraq.
- 152 For an assessment of Hezbollah operations in the Second Lebanon War, see Amir Rapaport, The IDF and the Lessons of the Second Lebanon War, Mideast Security and Policy Studies no. 85 (Israel: Begin-Sadat Center for Strategic Studies, December 2010); Russell W. Glenn, All Glory is Fleeting: Insights from the Second Lebanon War (Santa Monica, CA: RAND Corporation, 2012); and Sarah Kreps, "The Second Lebanon War: Lessons Learned," Parameters, Spring 2007, pp. 72–84.
- 153 Robert Farley, "5 Lethal Russian Weapons of War Ukraine Should Fear," *The National Interest*, September 10, 2016, available at http://nationalinterest.org/blog/the-buzz/5-lethal-russian-weapons-war-ukraine-should-fear-17647?page=2. See also Giles, Russia's "New" Tools for Confronting the West.

employ irregular proxy forces as part of a strategy to impose disproportionate costs on their enemies. Second, they can divert an enemy's attention away from the key geographic point of contention. Modern "brushfire" proxy conflicts in Latin America, for example, sponsored by a hostile revisionist power could divert U.S. resources from the Eurasian periphery. Modern irregular warfare capabilities also seem likely to increase the threat of a significant attack on the U.S. homeland, to include attacks on the just-in-time (JIT) global supply chain. <sup>154</sup> Should these kinds of attacks occur, they too could divert significant resources from those needed to support the Eurasian defense posture.

## Strategic Warfare

A key objective of U.S. strategy centers on preserving and extending the tradition of nuclear non-use. This stems from the current U.S. advantage in non-nuclear military capabilities and the fact that nuclear weapons represent the only existential threat to the United States. Today, however, the United States confronts a new strategic strike regime quite different from that of the Cold War era.

The Cold War was dominated by a *bipolar nuclear* competition between the United States and the Soviet Union. Current trends strongly indicate the competition is becoming *multipolar* in the sense that both major and minor nuclear powers are finding themselves confronting more than one rival nuclear power, whether or not those rivals are formally aligned. The competition is also becoming increasingly *multidimensional*. For example, while nuclear weapons are certain to remain the ultimate form of strategic strike, precision-guided weapons and cyber weapons have achieved, or offer substantial promise to achieve, the ability to substitute for nuclear weapons against some strategic targets. Both also have the potential to corrupt or disable early warning and command and control systems. Cyber payloads have the potential to do so without being detected. Moreover, the transformation of advanced economies into industrial-information hybrids appears to render them increasingly susceptible to cyber strategic strikes against critical infrastructure, such as the power grid, transportation systems, and financial sector. Sector 156

Several minor nuclear powers have small arsenals numbering in the low double digits. Against such countries, missile and air defenses may play a significant and perhaps major role in

<sup>154</sup> For a discussion of how the just-in-time global supply chain might be exploited to impose highly disproportionate costs on the U.S. economy, see Andrew F. Krepinevich, *7 Deadly Scenarios* (New York: Bantam Books, 2009), pp. 210–245.

<sup>155</sup> There are, for example, some who believe the Israeli attack on September 6, 2007 against a Syrian nuclear reactor under construction was facilitated by a cyberattack that corrupted the Syrians' IADS. Richard A. Clarke and Robert K. Knake, *Cyber War* (New York: Harper Collins, 2010), p. 7.

<sup>156</sup> Krepinevich, Cyber Warfare, pp. 39-45.

defending against a nuclear attack. Defenses might also have a significant effect on the strategic balance among the major nuclear powers.<sup>157</sup>

The emergence of conventional precision strategic strike operations has spawned efforts to reduce their effectiveness. Although they have not significantly diminished the lure of this form of warfare, defenses against these kinds of strikes have been far more effective than any yet devised to address the problems posed by a nuclear attack. They include both active defenses (such as integrated air defense networks) and passive defenses (such as GPS jamming and burying assets deep underground). Indeed, the precision/counter-precision competition has proven far more dynamic in its character than the nuclear strike/nuclear defense competition, which has favored the offense since the introduction of nuclear weapons over 70 years ago.

Although the nuclear competition has been static and offense dominant, and while the precision/counter-precision competition has been offense dominant and relatively dynamic, much less can be said with comparable certainty with respect to the cyber strategic strike competition. It is unclear whether this competition favors the offense or the defense, or whether it will be static (as in the nuclear case) or dynamic (as was the case, for example, in the submarine/anti-submarine competition in the Atlantic Ocean during World War II.) Evidence to date suggests that the competition is highly dynamic and has persistently favored the offense. <sup>158</sup>

It is difficult to envision any plausible existential threat to the United States emerging over the next two decades on par with the specter of a large-scale nuclear exchange. Yet several nation states, most prominently China and Russia, may already be capable of conducting strategic cyber attacks against U.S. critical infrastructure. Developing means to shore up critical U.S. infrastructure will require substantial time, effort, and resources, reducing those available for use along the Eurasian periphery. This cannot be avoided, as the forward defense of the U.S. homeland requires a rear area sufficiently secure to project and sustain U.S. forces overseas.

These developments confirm a major change in the character of strategic warfare, with potentially significant consequences for deterrence and escalation control. Yet, the U.S. military has yet to come to grips with how it would operate in a war involving strategic operations, to include the use of nuclear weapons.

<sup>157</sup> China, for example, has protested the planned U.S. deployment of the Terminal High Altitude Area Defense (THAAD) system in South Korea, while Russia has objected to U.S. plans to position missile defenses in Eastern Europe. Ting Shi, "South Korea Gets Cold Shoulder in China Backlash Over THAAD," *The Japan Times*, August 10, 2016, available at http://www.japantimes.co.jp/news/2016/08/10/asia-pacific/south-korea-gets-cold-shoulder-china-backlash-thaad/#.V-FR\_8tkCM9; and Andrew Kramer, "Russia Calls New U.S. Missile Defense System a 'Direct Threat'," *The New York Times*, May 12, 2016, available at http://www.nytimes.com/2016/05/13/world/europe/russia-nato-us-romania-missile-defense.html? r=0.

<sup>158</sup> Krepinevich, Cyber Warfare, pp. 39-45.

<sup>159</sup> Ibid., pp. i-iv, 2-5. Former U.S. defense secretary Leon Panetta has stated that a cyberattack "could paralyze this country." Former U.S. deputy defense secretary William Lynn has similarly declared that a cyberattack "could cause massive physical damage and economic disruption."

#### The Competition

In light of these developments, both China and Russia are modernizing their nuclear forces and their cyber arsenals. Russia, in particular, has developed a range of advanced nuclear weapons, some with very modest yields. <sup>160</sup> Despite the JCPOA, Iran is continuing its march toward nuclear threshold status while improving its ballistic missile forces. North Korea is expanding its nuclear arsenal and upgrading its inventory of ballistic missiles. Moreover, all of these revisionist states are enhancing their cyber capabilities. In addition to improving its cyber capabilities, the United States, on the other hand, has focused primarily on extending the life of its existing nuclear forces and improving its air and missile defenses, while also taking modest steps to sustain its competence in long-range conventional strategic strike operations. These emerging asymmetries between U.S., Chinese, and Russian strategic forces appear to be driven by differences in resource availability, strategic culture, and doctrine—to include varying perspectives regarding the circumstances in which nuclear weapons would be employed.

The changes in strategic warfare are reducing the relative clarity that once existed between nuclear and conventional warfare, likely making deterrence more difficult. This could have a profound effect on U.S. strategy. During the Cold War, the United States relied heavily on deterrence as the preferred defense posture with respect to the two greatest threats to its security: a Soviet nuclear attack and a Soviet-led conventional invasion of western Europe. The trend in several areas of the strategic strike competition toward offense dominance, growth in the number of competitors, reduced early attack warning time, and problems with attack attribution seem likely to erode the effectiveness of deterrence as a key component of U.S. strategy. The problem is further compounded by the increased cultural diversity of countries with significant strategic strike capabilities and advances in the cognitive sciences. <sup>161</sup> It remains unclear, however, as to what might replace U.S. reliance on deterrence as the means of preserving the country's security against strategic attack.

The U.S. military's ability to rely upon extended conventional deterrence is also likely to decline owing to the rise of rival A2/AD capabilities that, all other things being equal, will increase the cost and risk of traditional forms of U.S. power projection in support of its interests and allies along the Eurasian periphery. Consequently, The United States may find itself needing to adopt strategies that emphasize active and passive defenses, damage limitation, and preventive action more than it has in the past.

## Summary

Despite the decline in its relative position in key areas relating to the military competition, the fundamental U.S. situation remains strong. The United States faces a challenger in

<sup>160</sup> William J. Broad and David E. Sanger, "Race for Latest Class of Nuclear Arms threatens to Revive Cold War," New York Times, April 16, 2016, available at http://www.nytimes.com/2016/04/17/science/atom-bomb-nuclear-weapons-hgv-arms-race-russia-china.html.

<sup>161</sup> See Krepinevich and Cohn,  $Rethinking\ Armageddon$ , pp. 13–15.

China whose economic and military potential substantially surpasses those of America's great power rivals over the past century. The challenge is even more formidable when the threats posed by Russia, Iran, and increasingly potent non-state groups are added to the balance. Consequently, it will be far more difficult for the United States to simply overwhelm its adversaries with the sheer scale of effort it can bring to bear in any military contest. Nevertheless, the U.S. economy is likely to remain the world's largest over this paper's planning horizon. When combined with the economies of its major allies, the democratic great powers' economic capacity, at least by the measure of GDP, far exceeds that of the revisionist powers. As will be discussed in the next chapter, a key issue for the democracies will be their ability to translate their economic might into military capability efficiently and effectively.

Similarly, when it comes to human capital in the form of the size and technical proficiency of its military-age population, the U.S. position remains strong—again, with the exception of China. China has the world's largest population, and its people are becoming increasingly technically literate. Despite the relative U.S. disadvantage in human resources with respect to China, there are mitigating factors that work to the U.S. military's advantage. First, the ongoing rapid advance in military-related technologies offers strong evidence that the centuries-old trend of substituting capital for labor will continue in the military sphere. Second, the Western Pacific Theater of Operations is primarily an air, space, sea—and perhaps cyberspace—theater. The services that operate principally in these domains are the most capital-intensive. Moreover, logistics limitations in the first and second island chain archipelagos will likely limit the size of ground forces deployed to the islands in the event of war. Thus, a premium will be placed on the quality of these forces, an American strong suit, along with that of its principal allies in the region—Australia, Japan, South Korea, and Taiwan. As for the two other revisionist powers, Russia and Iran, the scale on which the United States, its allies, and security partners can mobilize technically literate manpower far exceeds theirs, and demographic trends ensure this will continue for the foreseeable future.

The United States has enjoyed unusually large advantages in almost every area of the military competition since the Cold War's end. This period is coming to an end. Thanks to the increased effort on the part of revisionist powers, the spread of existing advanced military technologies, and the rapid progress being made in emerging military-related technologies, U.S. competitive advantages are declining almost across the board. Not only are rivals increasing the scale of their efforts to generate military capabilities, but they are also working to shift the form of the military competition away from areas of U.S. strength, as witnessed by changes in the character of war across the entire spectrum of conflict.

The U.S. military's challenge will be to exploit its existing sources of advantage while developing new sources that will enable it to prevail in a highly dynamic and challenging competitive environment.

#### **CHAPTER 4**

## Resource Assessment

Despite the relative U.S. decline in several key dimensions of the military competition, its overall position remains more favorable than that of any other single power. In a rapidly changing competitive environment, however, the key to the U.S. military sustaining its favorable position will depend on its ability to create new sources of advantage and exploit them while sustaining enduring advantages. This brings us to the subject of this chapter: What resources are likely to be made available to accomplish this end?

#### **Economic Factors**

#### Near Term: Declining Resources for Defense

Even as the challenges to U.S. security have increased, funding for defense has been reduced. This action is unprecedented since the United States became an active global power three-quarters of a century ago. Between 2010 and 2016, as the revisionist powers' challenge to U.S. interests along the Eurasian periphery continued to expand, the U.S. defense budget was reduced by 14 percent in real terms and declined by roughly 30 percent as a portion of the country's GDP. <sup>162</sup>

These reductions are linked to the Budget Control Act (BCA), which mandates cuts in the Federal Government's discretionary spending, both for defense and non-defense accounts. Importantly, the BCA does not address mandatory (or non-discretionary) spending, nearly all of which appears in the form of entitlement spending and payments to cover the interest on the rapidly expanding U.S. debt. This situation appears unlikely to change anytime soon.

Consequently, recent estimates by the Congressional Budget Office project funding for defense declining from 3.6 to 2.6 percent of U.S. GDP by the mid-2020s. 163

This is not to say that the United States and its allies should peg their defense spending to a particular percentage of GDP. The level of defense spending should be a function of myriad factors: among them the scale and form of the threats to U.S. interests; the level of risk the American people are willing, and able, to accept to those interests; social priorities, such as the cost incurred for maintaining a volunteer force as opposed to conscription; the contributions of U.S. allies and partners to collective defense; how efficiently resources are employed; the quality of the strategy developed to employ the resources at hand; and how well that strategy is executed.

Nevertheless, the decline in resources the United States plans to devote to defense, relative to those being invested by the revisionist powers, finds it accumulating risk to its security. Robert Gates, who served as defense secretary under both President George W. Bush and President Barack Obama, put it bluntly in stating that cutting U.S. funding for defense "certainly sends a signal that we are not interested in protecting our global interests." <sup>164</sup>

#### Long-Term: Debt and the Entitlement State<sup>165</sup>

A key reason the United States will find it difficult to augment its defenses is its unwillingness to put its fiscal house in order. This stems largely from a failure to restrain spending and boost revenues. The U.S. debt is growing at a rapid rate. Simply covering the interest payments on the debt cost \$233 billion in FY 2015. The Congressional Budget Office projects that, left unaddressed, this will increase by over 250 percent—to \$830 billion—by the middle of the next decade. At this point, interest payments on the country's debt will exceed projected funding for national defense.

TABLE 3: U.S. FEDERAL	<b>GOVERNMENT</b>	<b>ENTITLEMENT</b>	<b>SPENDING</b>	AND IN	NTEREST	PAYMENTS
ON ITS DERT						

	2015	2026(CB0 est.)	Change
Mandatory Spending	\$2,299 billion	\$4,412 billion	+92%
Net Interest Payments	\$223 billion	\$830 billion	+272%

<sup>163</sup> Congressional Budget Office (CBO), The Budget and Economic Outlook: 2016–2026 (Washington, DC: CBO, January 2016), p. 20.

<sup>164</sup> Chris Wallace, "Robert Gates on Ukrainian Crisis, 'Reset' with Russia; Sen. Rand Paul Lays Out Vision for America at CPAC," Fox News Sunday, March 9, 2014, available at http://www.foxnews.com/on-air/fox-news-sunday-chris-wallace/2014/03/09/robert-gates-ukraine-crisis-reset-russia-sen-rand-paul-lays-out-vision-america-cpac#p//v/3319005279001.

<sup>165</sup> For a detailed discussion of the growth of the Entitlement State in the United States, See Nicholas Eberstadt, "American Exceptionalism and the Entitlement State," National Affairs, Winter 2015, pp. 25–38.

<sup>166</sup> CBO, The Budget and Economic Outlook, p. 2.

U.S. fiscal problems are not limited to a lack of discipline at the Federal level. Many states, municipalities and the territory of Puerto Rico have accumulated debt levels that may not be sustainable. To this should be added the enormous growth in unfunded state and local sector pension liabilities, which some estimate at roughly \$5 trillion. 167

With the exception of the Great Depression, every major debt spike before the current one was driven by war. The difference is profound. At the end of World War II, for example, the armed forces were demobilized to a peacetime posture. With demobilization, the demand for Federal expenditures declined dramatically and quickly. Defense budgets dropped correspondingly, as did the country's deficits. <sup>168</sup> This is fundamentally different from the situation the United States confronts today, where the rapid rise in government spending is linked to consumption, most of it in the form of entitlements that, as the term suggests, must be paid to those who are "entitled" to receive payment by virtue of their meeting certain criteria, and to covering interest payments on the country's rapidly growing debt. Consequently, there is no foreseeable decline in demand for government expenditures like there is at the conclusion of a major war. In fact, given the expansion of entitlements by the Obama and George W. Bush administrations, and the ongoing retirement of the "Baby Boomer" generation, the demand for entitlement funds will grow substantially. Outlays for mandatory (entitlement) programs are projected to rise to 15.0 percent of GDP by the mid-2020s—roughly six times that of defense. <sup>169</sup>

Further compounding the U.S. fiscal challenge, both the Social Security and Medicare trust funds are projected to be exhausted by 2034 and 2030, respectively.<sup>170</sup> If these estimates hold, significant cuts in benefits would be required or increased taxes would need to be imposed to offset or reduce the decline in benefits—or some combination thereof.

<sup>167</sup> Andrew G. Biggs, "Are State and Local Pensions Underfunded by \$5 Trillion?" Forbes, July 5, 2016.

<sup>168</sup> U.S. Government outlays dropped from \$92.7 billion in 1945 to \$29 billion in 1948. Budget deficits went from \$47.6 billion in 1945 to a *surplus* of \$11.8 billion in 1948. Office of Management and Budget (OMB), "Historical Tables," available at https://www.whitehouse.gov/omb/budget/historicals.

<sup>169</sup> CBO, The Budget and Economic Outlook, p.4.

The Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, *The 2015 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (Washington, DC: U.S. Government Publishing Office, July 22, 2015), available at https://www.ssa.gov/oact/tr/2015/tr2015.pdf; and Phil Galewitz, "Good News, Bad News in Medicare Trustees Report," *Kaiser Health News*, July 23, 2015, available at http://khn.org/news/good-news-bad-news-in-medicare-trustees-report/.

This by itself would not necessarily pose a problem—if the American people were willing to cover these expenditures through spending cuts and/or a significant boost in taxes, <sup>171</sup> or if economic growth were sufficiently robust to increase government revenues more rapidly than the cost of its spending. At present, however, none of these conditions obtains.

#### **Implications**

The effects of growing debt risks creating a vicious cycle that threatens to undermine the country's long-term economic health and, consequently, its ability to generate military power. The Congressional Budget Office's findings on this matter are worth quoting at length:

Large federal budget deficits over the long term would reduce investment, resulting in lower national income and higher interest rates than would otherwise occur. Increased government borrowing would cause a larger share of the savings potentially available for investment to be used for purchasing government securities, such as Treasury bonds. Those purchases would crowd out investment in capital goods—factories and computers, for example—which would make workers less productive. Because wages are determined mainly by workers' productivity, the reduction in investment would reduce wages as well, lessening people's incentive to work. Both the government and private borrowers would face higher interest rates to compete for savings, and those rates would strengthen people's incentive to save. However, the rise in saving by households and businesses would be a good deal smaller than the increase in federal borrowing represented by the change in the deficit, so national saving—total saving by all sectors of the economy—would decline, as would private investment.<sup>172</sup>

Some observers go further to argue that "Now, for the first time, we are seeing a vicious cycle in which the unsustainable debts of the future can no longer be rolled over to the next generation."  $^{173}$ 

The trend toward fiscal insolvency risks putting the United States on a path to social instability, pitting young against old, rich against poor, and workers against those on public assistance. Should this occur, absent a major and compelling threat to the nation's security, it may prove difficult to increase resources for defense. An unwillingness to improve the country's defenses during a period of rising threats risks being "penny wise and pound foolish."

<sup>171</sup> The challenge of putting the United States back on a sound fiscal footing is not beyond the American people's ability. That said, it would involve some significant sacrifice. To return its debt level by the year 2040 to its 50-year (1965–2015) average of 38 percent of GDP would require a 14 percent increase in revenues or a 13 percent cut in spending, or some combination of the two. (To retain the debt level at its current level of 74 percent of GDP would require a 6 percent increase in revenues or a 5.5 percent cut in spending, or some combination of the two). The average in federal revenues as a percentage of GDP from 1965 to 2014 was 17.4 percent. In 2015 revenues stood at 17.7 percent. They are projected to increase to 19.4 percent of GDP by 2040. Given the examples cited directly above, to avoid the cuts, revenues would need to be increased to somewhere between 20.5 and 22.1 percent of GDP. This does not address the problems associated with the depletion of the Social Security and Medicare trust funds. That said, there are a number of ways to resolve this matter, to include reducing benefits, extending the eligibility age, means testing, and increasing taxes. CBO, *The 2015 Long-Term Budget Outlook* (Washington, DC: CBO, June 2015), pp. 6–8.

<sup>172</sup> CBO, The 2015 Long-Term Budget Outlook, p. 16.

<sup>173</sup> Glenn Hubbard and Tim Kane, Balance: The Economics of Great Powers From Ancient Rome to Modern America (New York: Simon & Schuster, 2013), p. 211.

Failing to address the danger in its early stages will require far greater effort and sacrifice to offset when it fully matures.

In summary, the U.S. economic position—and the positions of its major European allies and Japan—is eroding and likely will continue to erode given current trends. That said, both the United States and its principal allies are capable of maintaining Cold War—level expenditures for defense—if they are willing to make significantly greater sacrifices than they have been willing to accept since that war's end.

## **Manpower**

The U.S. military is becoming a smaller, albeit arguably a more elite force. This force has proven adequate to address the demands posed by waging major campaigns against relatively small irregular forces in Afghanistan and Iraq. It is unlikely to be adequate, however, to address the full range of existing and emerging challenges to U.S. security at the relatively low levels of risk enjoyed over the past quarter century.

On the positive side of the ledger, should it choose to mobilize it the United States has a clear manpower advantage in both quantity and quality over Russia, Iran, and North Korea. This advantage becomes even greater if U.S. allies' manpower is taken into account. Indeed, only China, despite its worrisome demographic trends, possesses a clear quantitative manpower advantage over the United States.

That said, as noted earlier the Western Pacific Theater of Operations is primarily an air-sea-space theater, putting a premium on capital-intensive capabilities such as ships and planes, relative to manpower. Logistics limitations are also likely to limit greatly the PLA's ability to project large land forces to the FIC in the event of war. Thus, geography dilutes China's manpower advantage in the region. <sup>174</sup> Moreover, along China's southern border, manpower-rich India stands as an attractive de facto ally. To the extent it poses a threat to China's southern flank, India's large army serves to draw PLA resources away from the WPTO, easing significantly the efforts of the United States and its allies to maintain a stable balance in the theater.

Raw numbers aside, the United States enjoys a significant advantage in the quality and general operational experience of its manpower, which is accentuated by its world-class high-fidelity training infrastructure. The Combined with ongoing rapid advances in artificial

<sup>174</sup> That said, should China occupy and convert places like Scarborough Shoal into bases, it could support a larger invasion force against the Philippines with less risk than an operation launched from Hainan or the mainland.

<sup>175</sup> Beginning in the late 1960s the U.S. military began a major long-term effort to enhance combat training, an effort that continues to this day. Training programs like the U.S. Navy's Fighter Weapons School (Top Gun); the U.S. Air Force's Red Flag training at Nellis Air Force Base; the U.S. Army's National Training Center at Fort Irwin, CA; and the U.S. Marine Corps Air Ground Combat Center offer testimony to this commitment and its effectiveness. Watts, U.S. Combat Training, Operational Art, and Strategic Competence, pp. 7–16.

intelligence and robotics, the geographic characteristics of the WPTO, and India's potential role as a *de facto* ally, the U.S. manpower position with respect to China is manageable.

On the negative side of the ledger, the United States has self-limited itself in several important ways with respect to its ability to leverage its manpower advantages. America's "Baby Boomer" generation represented a huge source of manpower during much of the Cold War's early decades. Moreover, conscription—or "selective service"—provided a means of maintaining personnel costs at relatively low levels. A large percentage of American males were both qualified to serve in the armed forces, and did. During the Korean War, roughly 70 percent of draft age American males were in uniform. Even during the Vietnam War, when a variety of exemptions enabled substantial numbers of young men to avoid the draft, 43 percent of those qualified served.<sup>176</sup>

Over the last 40 years or so, however, the United States and most of its principal allies have transitioned from conscript to volunteer militaries. In so doing they have limited themselves to relatively small, professional forces. As currently constituted, neither the Unites States nor the major European allies' militaries are capable of expanding as quickly as they were in the period leading up to World War II, or even during the Cold War. Nevertheless, even under these conditions the United States enjoys a marked advantage over Iran and Russia.

This places the U.S. and its allies in a relatively favorable position with respect to fielding the forces necessary for preserving military stability along the Eurasian periphery or fighting protracted low-level conflicts against minor irregular forces—such as ISIS and the Taliban—that are not viewed as posing an existential threat.

On the other hand, large, well-trained, and well-equipped (such as with G-RAMM weaponry) forces (such as Hezbollah) waging advanced irregular warfare could stress U.S. manpower. It could also make pursuing these kinds of proxy wars attractive for U.S. rivals. Although such adversaries would not likely represent an immediate threat to key U.S. interests along the Eurasian periphery, they could impose disproportionate costs on the American military. An important part of any global U.S. defense strategy should be to support ally and partner efforts in Latin America, Africa, and the Eurasian rim to assume the principal responsibility for their own local security. Yet as both the Obama and George W. Bush administrations have discovered, building partner capacity is easier said than done.

While the United States is in a generally favorable position when it comes to the quality and quantity of its forces, the growing cost of maintaining an all-volunteer force cannot be ignored. Despite the U.S. military's reduction in size (from 2.1 million serving on active duty during the Cold War to a current force roughly two-thirds that size) and the nation's growing population, cost per troop has increased over the past 15 years by over 50 percent, even after inflation is

<sup>&</sup>quot;Who Will Fight the Next War?" *The Economist*, October 24, 2015, available at http://www.economist.com/news/united-states/21676778-failures-iraq-and-afghanistan-have-widened-gulf-between-most-americans-and-armed.

taken into account.<sup>177</sup> With personnel cost growth outstripping growth in the overall defense budget, funding for readiness, training, and new equipment is being crowded out.

The perceived need to minimize casualties in order to recruit and retain sufficient manpower further constrains defense investment strategy. Over \$40 billion was spent on MRAP (Mine Resistant Ambush Preventive) vehicles and over \$20 billion to detect roadside bombs during the wars in Afghanistan and Iraq. 178 While these investments were made in part from moral and ethical concerns, they also had to be undertaken to maintain the low casualty rates needed for recruiting and retaining sufficient numbers of volunteers to sustain operations. Yet as noted above, prospective U.S. enemy forces possess far greater lethality than that of enemy forces encountered in either Afghanistan or Iraq. Thus, it is difficult to see how casualties can continue to be maintained at the relatively low levels to which the Unites States has become accustomed since the First Gulf War. Further compounding the problem, despite a population of roughly 21 million men and women in the 17-21 age cohort, over two-thirds fail to meet U.S. even the minimum military standards, leaving "only" some 4.5 million qualified to serve. 179 This suggests that increasing the military's size substantially within the framework of an all-professional force would require a major increase in funds, cutbacks on training and new kit, lower recruiting standards, or some combination thereof. In brief, to the extent the U.S. military has a potential manpower problem, it appears to be less a lack of qualified recruits than a lack of funds.

In summary, although the United States and its allies have in most cases a major advantage in manpower, this advantage is greatly reduced by their social preferences and choices—a high aversion to casualties and the choice to avoid compelling any citizen from serving in the armed forces against his/her will. This could turn a potential enduring source of competitive advantage into a weakness.

#### **The Industrial Base**

Combat power is also a function of the ability to produce materiel in sufficient quantity and with the necessary speed to equip the force and replace losses. The DIB is sufficient to support the current force in peacetime and in a war against low-level threats with modest equipment losses along the lines suffered in Afghanistan and Iraq. Given sufficient time and resources,

- 177 Andrew F. Krepinevich, "Overhauling the Army for the Age of Irregular Warfare," *Wall Street Journal*, February 19, 2016, available at http://www.wsj.com/articles/overhauling-the-army-for-the-age-of-irregular-warfare-1455839486.
- 178 Alex Rogers, "The MRAP: Brilliant Buy, or Billions Wasted?" *TIME*, October 2, 2012, available at http://www.nation.time. com/2012/10/02/the-mrap-brilliant-buy-or-billions-wasted/; and Peter Cary and Nancy A. Youssef, "Pentagon Spends Billions to Fight Roadside Bombs, with Little Success," *Center for Public Integrity and McClatchy Newspapers*, March 27, 2011, available at http://www.mcclatchydc.com/news/nation-world/world/article24618172.html.
- 179 About 9.5 million lack the needed basic education skills, while another one-third are overweight, have criminal records, or possess other undesirable qualities. During FY 2015, the Services sought to recruit 177,000 people, mostly from those 21 million in the 17–21 age group. They succeeded, but only by the Army advancing those scheduled for induction in FY 2016 to cover the shortfall. This problem has arisen even though the Army is shrinking from 565,000 to 450,000. "Who Will Fight the Next War?" *The Economist*.

the DIB can support a Cold War level effort—a long-term peacetime competition with a substantially increased force size that engages in periodic combat with relatively low equipment attrition rates. The DIB's ability to surge production to support a high-intensity war against one or more revisionist great powers—especially China—that extends beyond a year is highly problematic, as well as its ability to surge production of new equipment. A cursory overview of the situation finds as many sources of potential weakness as sources of advantage. Such an exercise also discovers some facts that challenge the "conventional wisdom" regarding the U.S. industrial base in general, and the defense industrial base in particular.

TABLE 4: U.S. STEEL AND ALUMINUM PRODUCTION180

	1945	2015
U.S. Steel	53.8 mmt	86.6 mmt
U.S. Aluminum	0.5 mmt	1.7 mmt

mmt: millions of metric tons

TABLE 5: CURRENT U.S. AND CHINA STEEL AND ALUMINUM PRODUCTION181

2014 (est.)	Steel	Aluminum
United States	86.6 mmt	1.7 mmt
China	822.7 mmt	23.3 mmt

Conventional wisdom has it that the United States is no longer an industrial nation, but one that has transitioned to an information-driven service economy. To a considerable extent, this is true. Yet when compared to the "Arsenal of Democracy" in World War II, America's industrial base today still appears formidable. In 1946, the first full year of commercial auto production after the war, Detroit produced 2.2 million cars. In 2015 U.S. industry built roughly 17 million cars. In 1945, the last year of war production, the industrial base produced 58.5 million tons of steel and 0.5 million tons of aluminum. The figures for 2014 are 86.6 million tons and 1.7 million tons, respectively. Alas, the United States is not competing against a 70-year-old version of itself. China, far and away the most serious challenge to U.S. security interests along the Eurasian periphery, produces twenty times as much steel as the United States, and over ten times as much aluminum.

That said, warfare has changed greatly since 1945. One might ask: are steel and aluminum as critical to generating combat potential today as they were 70 years ago? Should, perhaps, greater weight be placed on composite materials and plastics? What seems far more likely is

<sup>180</sup> Christopher J. Bowie, "Aircraft Surge Production Capability," briefing, Northrop Grumman Analysis Center, July 22, 2016.

<sup>181</sup> Ibid.; World Steel Association, "Crude Steel Production: Monthly Data 1990–2015," available at http://www.worldsteel. org/statistics/statistics-archive/steel-archive.html; and "Mineral Commodity Summaries: Aluminum," U.S. Geological Survey, January 2015, available at http://minerals.usgs.gov/minerals/pubs/commodity/aluminum/mcs-2015-alumi.pdf.

that oil and natural gas will continue playing a major role in the economies of advanced industrial states. Here the United States has a clear advantage, as it produces sufficient quantities of each to satisfy its demands while China has become the world's leading importer of both.

Looking toward the far end of the planning horizon, we may find that additive manufacturing plays an important role in a 21<sup>st</sup>-century arsenal of democracy, to include determining the types and quantities of materials required to produce military equipment.

TABLE 6: U.S. AND CHINESE OIL AND NATURAL GAS PRODUCTION182

2014	Oil	Natural Gas
United States	14.132 million bbl/day	31,405 billion cubic feet
China	6.620 million bbl/day	4,360 billion cubic feet

bbl: (oil) barrel

The United States is also blessed with a highly skilled labor force in its defense industrial base. It is, however, much smaller and older than it was at the end of the Cold War. It may be that the critical bottleneck in expanding U.S. military equipment will be neither lack of access to raw materials or industrial capacity, but a shortage of the right workers. On the other hand, rapid advances in artificial intelligence and robotics may partially offset this decline. <sup>183</sup> Unfortunately, the Defense Department has no clear idea as to where the production bottlenecks might be.

#### **Time**

The United States is losing its long-term advantage in a number of key military-related technologies. This is partially unavoidable, as many emerging technologies with the potential to boost military effectiveness—such as AI, big data, directed energy, genetic engineering, additive manufacturing, and robotics—are being driven primarily by the commercial sector. Since these technologies are available to all who have the means to obtain them, competitive advantage will accrue to those militaries that can identify how best to exploit them and can do so more quickly than their rivals. Thus, time is becoming an increasingly valuable resource. As Benjamin Franklin famously observed, "Time is money." Consider, for example, the more

<sup>182 &</sup>quot;International Energy Statistics," database, U.S. Energy Information Administration (EIA) Beta, available at https://www.eia.gov/beta/international/data/browser/#/?vs=INTL.44-1-AFRC-QBTU.A&vo=0&v=H&start=1980&end=2014.

<sup>183</sup> Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age* (New York: W. W. Norton, 2014), pp. 27–34. See also David Mindell, *Our Robots, Ourselves* (New York: Viking Press, 2015).

<sup>184</sup> The situation is somewhat reminiscent of the period between the two world wars, when the U.S. industrial base drew upon commercial technologies related to aviation, mechanization (the automotive industry), and radio along with certain proprietary technologies, such as the Norden bombsight and proximity fusing, to effect dramatic boosts in the U.S. military's combat potential. For a discussion of defense investment strategies under conditions of geopolitical and military-technical uncertainty, see Andrew F. Krepinevich, *Defense Investment Strategies in an Uncertain World* (Washington, DC: Center for Strategic and Budgetary Assessments, 2008).

effectively time is leveraged to generate new capabilities quickly, the less the U.S. military would need to spend on standing forces.

The U.S. defense industrial base has significant potential to impose substantial costs on rivals through a core competency in time-based competition. Its ability to do so rests primarily in the hands of Congress and the Defense Department through their ability to provide incentives—and disincentives—to the industrial base. By setting and locking in realistic requirements, the U.S. acquisition system can field equipment more rapidly and efficiently than it does now and, more importantly, than its rivals. It can also impose costs on rivals since the uncertainty created by compressed production timelines compels adversaries to prepare for a wider range and mix of possible U.S. military capabilities. Rivals must either spread their resources more thinly, reducing the threat they pose, or increase their spending to counter capabilities that the U.S. military may never end up acquiring.<sup>185</sup>

Unfortunately, the current U.S. acquisition system does not excel at either speed or agility. Rather than leveraging time to its advantage, the United States Defense Department squanders this precious resource, often taking over a decade or more to field new systems and capabilities. Consequently, the United States is taking far longer than its adversaries to field the new capabilities essential to remain competitive in a world of rapid technological change. If its military is to maintain its long-standing advantage in the quality of its equipment, the U.S. defense establishment will need to develop ways to compress radically the time it takes to get new equipment into the field. The long-term solution is a fundamental reform of the defense acquisition system itself.

#### **Allies and Partners**

The United States might also look to its major allies to augment its military capability. Yet these allies, who made significant contributions during the Cold War, are even more challenged than the United States in their ability to generate military power. Demographically speaking, they are among the world's oldest countries, and among the world's most generous when it comes to social welfare, having led the way in creating the "Entitlement State." The European and Japanese demographic profile is far worse than the United States, with

The Pentagon is enjoying some modest success in this area. Under some circumstances, the Air Force's Rapid Capabilities Office can bypass the dysfunctional acquisition system in order to quickly procure new equipment and upgrade old equipment. The Army and Navy have followed suit. "Rapid Capabilities Office," factsheet, U.S. Air Force, August 28, 2009, available at http://www.af.mil/AboutUs/FactSheets/Display/tabid/224/Article/104513/rapid-capabilities-office.aspx; Jesse Stalder, "Army Launches Rapid Capabilities Office," U.S. Army, August 31, 2016, available at https://www.army.mil/article/174290/army\_launches\_rapid\_capabilities\_office; and Megan Eckstein, "New Navy Procurement Office, Marines to Push Rapid Innovation in 2016," USNI News, March 1, 2016, available at https://news.usni.org/2016/03/01/new-navy-procurement-office-marines-to-push-rapid-innovation-in-2016. For a discussion of time-based competition, see George Stalk Jr. and Thomas M. Hout, Competing Against Time (New York: The Free Press, 1990), pp. 1–82, 107–148. See also Krepinevich, Defense Investment Strategies in an Uncertain World, pp. 25–26, 39–43.

progressively worsening dependency ratios, further constraining their militaries' access to manpower. 186

It also means, as in the case of the United States, more of the public purse being diverted into entitlement payments with less being available for defense. Declining numbers of young people in these countries will also raise the costs of manpower for the military services that have shifted from conscript to professional forces. The trend toward ever greater numbers of pensioners and ever fewer workers to support them would be difficult to reverse over the next several decades—and impossible to accomplish in the near term. This, combined with the European allies' very liberal immigration policies has made them magnets for migrants seeking a better life for themselves, particularly people from the Middle East and South Asia. This has diverted still more of the public purse into these countries' social welfare accounts. Finally, unlike the United States, these European countries do not have a history of assimilating immigrants into their society and culture. Their inability to do so has led to concerns that a significant portion of these immigrants or their offspring may pose an internal security problem, diverting still more resources from addressing external threats.

Relative to the United States, these major economic powers are less entrepreneurial with more government intervention in the economy, factors that have likely contributed to stagnant economic growth. <sup>187</sup> Their debt levels in most instances are considerably worse than that of the United States. <sup>188</sup> As in the United States there are major political and social barriers to changing this situation, absent a financial crisis of the first order.

The situation is made still worse by these countries' increasing tendency to act as "free riders," relying on the United States to provide for their security. This arrangement worked in the immediate post-Cold War period when the greatest threats to peace were Milosevic's Serbia, Saddam Hussein's Iraq, and Kim Jong-il's (non-nuclear) North Korea. But the world is now a far more dangerous place.

It comes as no surprise that the most capable U.S. allies have been progressively reducing their defense efforts. In the period prior to 9/11, from 1995–1999, the U.S. devoted an average

<sup>&</sup>quot;The Incredible Shrinking Country," The Economist, March 25, 2014, available at http://www.economist.com/blogs/banyan/2014/03/japans-demography; and Ashifa Kassam et al., "Europe Needs Many More Babies to Avert a Population Disaster," The Guardian, August 22, 2015, available at https://www.theguardian.com/world/2015/aug/23/baby-crisis-europe-brink-depopulation-disaster.

<sup>187</sup> Dhruva Jaishankar, "The Specter of Japanese-Like Stagnation," U.S. News and World Report, February 19, 2015, available at http://www.usnews.com/opinion/blogs/world-report/2015/02/19/japans-economic-stagnation-is-a-cautionary-tale-for-europe.

<sup>188</sup> Ashley Kirk, "European Debt Crisis: It's Not Just Greece That's Drowning in Debt," *The Telegraph*, June 29, 2015, available at http://www.telegraph.co.uk/news/worldnews/europe/greece/11705720/European-debt-crisis-Its-not-just-Greece-thats-drowning-in-debt.html.

<sup>&</sup>quot;Transcript of Defense Secretary Gates' Speech on NATO's Future," Washington Wire blog, The Wall Street Journal, June 10, 2011, available at http://blogs.wsj.com/washwire/2011/06/10/transcript-of-defense-secretary-gatess-speech-on-natos-future/; and Goldberg, "The Obama Doctrine."

of 3.2 percent of its GDP to defense. The corresponding figure for France during that time was 2.9; for Germany 1.6; and for Britain, 2.6.

TABLE 7: PERCENTAGE OF GDP DEVOTED TO DEFENSE: UNITED STATES AND SELECTED ALLIES<sup>190</sup>

	Percentage of GDP devoted to defense 1995-1999	Percentage of GDP devoted to defense 2015
United States	3.2	3.6
France	2.9	1.8
Germany	1.6	1.2
Great Britain	2.6	2.1

By 2015 the gap had widened. The United States had increased its share of GDP devoted to defense to 3.6 percent, while the shares of France, Germany, and Britain had all declined substantially. At present only the United Kingdom plans to budget more than NATO's declared minimum of 2 percent of GDP, and it seems increasingly unlikely it will achieve even this modest goal. In the Far East, despite China's massive military buildup, Japan remains tethered to its self-imposed ceiling of 1 percent of GDP for defense. Finally, like the United States, these countries have adopted an all-volunteer/professional force model. This has produced the same indirect personnel tax on their military budgets as has occurred in the United States.

These trends, which have only grown worse of the past 60 years, make it highly unlikely that America's European allies will "up their game" absent some catastrophic shift in their local security environment. From an alliance perspective, the European "free rider" issue can better be viewed not as a "problem" to be solved, but rather a "condition" under which U.S. defense planning must take place.

#### **Public Morale**

What Michael Howard called the social dimension of strategy is a key factor in any security competition. Particularly in democracies, public support is crucial to the government's efforts to establish and sustain a level of military capability needed to achieve its strategic objectives at an acceptable level of risk. Present circumstances suggest that the U.S. public—as well as the

<sup>&</sup>quot;Information on Defense Expenditures," NATO, updated December 8, 2016, available at http://www.nato.int/cps/en/natohq/topics\_49198.htm.

publics of its principal allies—lack the "clarity of comprehension" of the threat to their security as well as the "readiness to sacrifice" needed to preserve it.<sup>191</sup>

Moreover, given the popular perception of U.S. failure in the Afghan and Second Gulf Wars, the American people have set the bar even higher with respect to the use of military force. Indeed, the American public has long shown a propensity to grow weary with protracted conflicts, especially when the costs in manpower and materiel are substantial and, there is no clear demonstrated progress toward victory. Examples include the Civil War, Korean War, Vietnam War, and stability operations following regime change campaigns in Afghanistan and Iraq in 2001 and 2003, respectively. U.S. must acknowledge this enduring social dimension in crafting its defense strategy.

The Obama administration's persistence in seeking common ground with the revisionist powers, despite their increasingly aggressive actions, has arguably contributed to the American people's general lack of awareness regarding the growing security challenges confronting the United States and its allies. Consequently, the American people do not view improving the country's defenses as a high priority. 192

Given the rapidly growing U.S. debt and looming entitlements crisis, it appears likely that the American people will be relatively less inclined to make sacrifices on behalf of their security absent the emergence of a clear and existential threat. As noted above, the same holds true to an even greater degree for the principal U.S. European allies. It also means that defense budgets are not likely to increase significantly from current levels. This increases the risk that the challenge posed by the revisionist powers will only worsen with time.

While history does not repeat itself in a literal sense, a disturbing rough parallel exists between the contemporary social environment and the decade before the Second World War. The European powers, especially, along with the United States had engaged in a brutal world war from 1914–1918 whose gains—if any—appeared minuscule compared to the sacrifice involved

- 191 Katie Simmons, Bruce Stokes, and Jacob Poushter, *NATO Publics Blame Russia for Ukrainian Crisis, but Reluctant to Provide Military Aid* (Washington, DC: Pew Research Center, June 10, 2015), available at http://www.pewglobal.org/2015/06/10/nato-publics-blame-russia-for-ukrainian-crisis-but-reluctant-to-provide-military-aid/. Dwight Eisenhower declared, "If the men and women of America. . . . can retain the moral integrity, the clarity of comprehension, and the readiness to sacrifice that finally crushed the Axis, then the free world will live and prosper, and all peoples, eventually, will reach a level of culture, contentment, and security that has never before been achieved." Dwight D. Eisenhower, *Crusade in Europe* (Garden City, NY: Doubleday, 1948), pp. 477–478.
- 192 According to a poll by the Pew Charitable Trust, terrorism and foreign policy ranked as the 2<sup>nd</sup> and 3<sup>rd</sup> most important issues to voters behind the economy, with 80 and 75 percent of registered voters, respectively, saying the issues are "very important" to them. 2016 Campaign: Strong Interest, Widespread Dissatisfaction (Washington, DC: Pew Research Center, July 7, 2016), pp. 31–39, available at http://www.people-press.org/2016/07/07/4-top-voting-issues-in-2016-election/. Yet actions speak louder than words. Efforts to get America's fiscal house in order through Sequestration exclude the fastest growing part of the budget, entitlements. The burden for cuts falls entirely on the discretionary part of the budget, the defense and domestic accounts. Americans may be concerned about security but are also highly opposed to raising taxes. Finally, while the Obama administration was willing to increase the defense budget, it would do so only if corresponding increases were made to domestic discretionary programs. Gregory Korte, "Obama Vetoes Defense Bill in High-Stakes Showdown Over Spending," USA Today, October 22, 2015, available at http://www.usatoday.com/story/news/politics/2015/10/22/obama-veto-defense-authorization-bill-spending-fight/74371856/.

in waging it. The 1930s brought the Great Depression, and economic times were difficult. Few seemed willing to fight for "King and Country." <sup>193</sup>

The result was the rise of an existential threat, which was only narrowly defeated and at great cost. Victory was achieved in no small measure by the great leadership demonstrated by Winston Churchill and Franklin Roosevelt. In today's parlance, both men advanced an unpopular "strategic narrative" to their people on the need to improve their country's defenses and for collective national sacrifice. Such leadership is needed today. If not found in the White House, it must be found elsewhere, such as in the legislative branch.

## **Summary**

The United States faces an environment where the security challenges confronting it are at their greatest level in at least a quarter century, while the resources likely to be made available to address these challenges, both individually and collectively—through its alliances—are diminishing in both absolute and relative terms.

Moreover, the U.S. ability to increase its defense effort is becoming increasingly constrained. The prospect of a surge in economic growth outstripping the growth in the country's debt appears dim, while the demands of the Entitlement State on the public purse are growing. Absent vigorous action to avoid an explosion in debt payments and the exhaustion of the principal entitlement trust funds, a social crisis looms that could greatly disadvantage the United States and its principal allies in the security competition. Substantial sacrifice in the form of reduced government services, entitlement benefits, increased taxes, or some combination of these will be needed to restore the nation's economic health.

Given these circumstances, absent the emergence of a clear, existential threat to the United States, it will prove increasingly difficult to win public support for restoring the country's defense effort to Cold War spending levels of greater than 6 percent of GDP—or even the level of over 4 percent supported in the decade following the 9/11 attacks. Simply put, it would be imprudent for those crafting a Eurasian defense strategy to assume the kind of surge in spending that major challenges to U.S. security produced over the past century. While the United States allocated roughly 3.6 percent of its GDP to defense in 2015, it seems prudent to assume that, given the factors elaborated upon above, defense budgets averaging above 3 percent of GDP will be difficult to fund—again, absent suffering some catastrophic reversal to U.S. security. As sobering as the U.S. position is, the outlook for America's great power allies is even worse.

Yet, the picture is not entirely dark. As noted earlier, there are signs that China's economy is slowing down while Russia's, based so heavily on commodities, is experiencing difficulties

<sup>193</sup> The famous "King and Country" debate occurred on February 9, 1933, at the Oxford Union. The motion "That this house will in no circumstances fight for its King and Country" passed by 275 votes to 153. Martin Ceadel, "The 'King and Country' Debate, 1933: Student Politics, Pacifism and the Dictators," *The Historical Journal*, June 1979, pp. 397–422.

avoiding negative growth. Both countries have yet to face the full costs of environmental degradation, demographic decline and institutionalized corruption that could further constrain growth.

With respect to manpower, the United States and its allies have self-limited themselves by adopting a policy of voluntary service. This limiting factor is mitigated somewhat by the relatively small manpower pools of Russia and Iran, and the characteristics of the WPTO. That said, the costs (to the defense budget) of recruiting and retaining a volunteer force are substantially greater than for a conscript force, diverting funds from training, maintenance, new equipment, and research into advanced capabilities.

With respect to the industrial base, China has surpassed the United States in the production of many materials long associated with military systems, such as steel and aluminum. But it's not clear that this ability would count for as much in a future information era conflict as it did in the industrial era. Moreover, unlike the United States, China depends on overseas imports for much of its raw materials as well as its energy. America does not. This, combined with the U.S. military's ability to impose a blockade of China, could greatly offset this potential source of competitive advantage. 194

The U.S. defense industrial base remains the world's finest, although China's is closing the gap. Russia's DIB remains formidable as well. The principal source of U.S. disadvantage here concerns the length of time it takes for the industrial base to field new equipment. Currently, the United States takes far longer than its adversaries to get new equipment from the drawing board and into the hands of its men and women in uniform. The ability to compete based on time—to use it as a resource and as a weapon—is a potentially major source of competitive advantage that should be featured in any U.S. defense strategy.

Finally, the level of resources devoted to defense in a democracy is a function of its citizens' willingness to sacrifice. The American people and the citizens of many of its key allies are reluctant to make the sacrifices needed to augment their funding of their militaries significantly, while their leaders have in most cases failed to make the case for the need for sacrifice.

The revisionist powers confront substantial challenges as well in the social dimension of strategy. Iran's leaders, like those in Russia and China, do not enjoy the legitimacy that comes from ascending to power through free and fair elections. Each of these countries has experienced substantial internal dissent that has been subjected to repression. This dissent is a source of weakness for these regimes that may have to be addressed by diverting resources from defense to internal security forces.

<sup>194</sup> Should the ability to sustain a protracted blockade of China emerge as an important source of competitive advantage for the United States, the value of Russia transitioning over time from a revisionist power to a U.S. security partner could be considerable.

That said, the three states have thus far been successful in mobilizing popular support for their revisionist aims. The CCP has successfully indoctrinated generations of Chinese to view its expansionist territorial claims as legitimate. Despite Russia's growing economic difficulties, Putin has retained his popularity by appealing to the Russian people's desire to have their country recognized by the world as a great power whose views must be considered and respected. He Iranian people's desire for a normalization of their country's relations with the Western democracies has not translated into opposition to the regime's ongoing proxy wars, nor its push, at great sacrifice, to accumulate the means needed to produce nuclear weapons. He revisionist power leaders have been more successful than their counterparts in the great democracies in mobilizing popular support sufficient to sustain their military buildups.

<sup>&</sup>quot;My Nationalism and Don't You Forget It: Xi Jinping Tries to Contain Public Fury Over the South China Sea," *The Economist*, July 23, 2016, available at http://www.economist.com/news/china/21702527-xi-jinping-tries-contain-public-fury-over-south-china-sea-my-nationalism-and-dont-you.

<sup>196</sup> Steven Ward, "How Putin's Desire to Restore Russia to Great Power Status Matters," *The Washington Post*, March 6, 2014, available at https://www.washingtonpost.com/news/monkey-cage/wp/2014/03/06/how-putins-desire-to-restore-russia-to-great-power-status-matters/.

<sup>197</sup> Brad Stapleton, "Iran and the Imperative of Sustained Engagement," War on the Rocks, August 17, 2016, available at http://www.warontherocks.com/2016/08/iran-and-the-imperative-of-sustained-engagement/.

#### **CHAPTER 5**

# Strategy

The United States seeks to preserve a favorable military balance on the Eurasian periphery (or "rim") as the best means of preventing the emergence of a hegemonic power in Asia or Europe and ensuring its long-term security. Toward this end, the United States finds itself engaged in a long-term competition with three principal rivals, one in each of the three theaters of operation, who seek to shift the military balance in their favor to achieve their revisionist aims. These rivals—China, Russia, and Iran—are working to offset traditional sources of U.S. military advantage, and doing so on arguably an unprecedented scale, or at least not one experienced since the Cold War. The United States also finds the revisionist powers—as well as other hostile states and groups—leveraging rapidly diffusing military technologies and military-related commercial technologies to shift the character of military competitions in new and dramatic ways. The result is that many sources of U.S. military advantage are declining, some at an alarming rate.

Despite these significant negative trends, the United States also retains important advantages that include:

- A favorable geographic position that provides great strategic depth;
- An impressive portfolio of allies and security partners that confers significant positional advantage, enabling the United States to establish defenses far from its shores;
- An impressive array of military capabilities and unsurpassed experience in a wide range of operations;
- A healthy demographic profile;
- A formidable industrial base with access to a wide range of strategic materials; and
- An entrepreneurial culture and free market system that has underpinned its standing as the world's largest and most dynamic economy.

TABLE 8: U.S. AND GREAT POWER ALLY GDP RELATIVE TO REVISIONIST POWER GDP198

Country	GDP (Millions of U.S. Dollars)
China	\$10,866,444
Russia	\$1,326,015
Iran	\$425,326
	\$12,617,785
United States	\$17,946,996
Japan	\$4,123,258
Germany	\$3,355,772
United Kingdom	\$2,848,755
France	\$2,421,682
	\$30,696,463

Yet some of these advantages are being contested, primarily by China, which is rapidly closing the gap with the United States in terms of GDP. Beijing is also looking to gain positional advantage, particularly in the Indo-Pacific region, and is using its growing economic power in attempting to influence the political orientation of key states. China's industrial base has experienced rapid growth and now out-produces the United States in some sectors traditionally associated with the production of military systems.

In the current environment, U.S. strategists cannot assume that rapidly rising threats will yield major boosts in defense resources—thinking richer about defense must yield to thinking smarter about defense. Given U.S. fiscal trends described above, the strategy presented here assumes a level of funding for defense in line with the Obama administration's FY 2017 projections. <sup>199</sup> These projections call for a gradual decline in defense funding as a share of the country's GDP to levels anticipated in the CBO's long-term estimates but are not as stark as those mandated by the Budget Control Act. <sup>200</sup> Given that defense resources are likely to be

<sup>198 &</sup>quot;GDP Ranking," World Development Indicators, The World Bank, updated December 16, 2016, available at http://data.worldbank.org/data-catalog/GDP-ranking-table.

<sup>199</sup> As of this writing it is unclear whether the election of Donald Trump as president will produce a major change in the level of U.S. defense funding. While the strategy that follows employs the Obama administration's FY 2017 funding projections, it also establishes priorities. Should defense funding fall below the levels assumed in the strategy, low-level priorities can be abandoned and increased risk can be assumed across a number of priorities. The strategy also provides an alternative defense program based on a significant increase in defense funding.

<sup>200</sup> An alternative budget projection is explored as an excursion to the administration's baseline. It calls for a modest increase in funding levels, which nevertheless significantly reduces the risk associated with the strategy. Even with this funding increase, resources for defense still consume less than 3 percent of U.S. GDP, or over one-quarter less than defense budgets during the so-called global war on terror in the 2000s and less than half the average allocated to defense during the Cold War rivalry with Soviet Russia. For details see Appendices A through F.

increasingly constrained, investments must focus on "needs" rather than "wants," on capabilities that are highly relevant to the strategy and not merely the result of Service traditions or program momentum.

Given this diagnosis of the situation facing the United States, this chapter presents a Eurasian defense strategy to achieve the objective stated above at the lowest level of risk with the resources at hand. Toward this end, the strategy establishes an acceptable balance along the Eurasian periphery in the near term while providing sufficient resources to identify, develop, and exploit new sources of advantage over what is shaping up as a protracted competition with the revisionist powers.

The discussion begins with a discussion of geostrategic priorities, followed by an overview of the Eurasian force posture as a whole and then the individual theater force postures, to include the disposition of operational and strategic reserves and the global commons. This is followed by a discussion of temporal factors and their influence on strategic priorities over the 20-year planning horizon.

Having presented the strategy, the conversation turns to priority capabilities that are likely to be most effective in executing the strategy in the near-term, followed by actions required to developing new sources of competitive advantage in the long-term competition with the revisionist powers. Among the prospective advantages are those relating to new capabilities and operational concepts, and the ability to compete based on time.

As this strategy accepts a level of risk arguably not incurred since the "hollow military" period of the late 1970s, an excursion employing a modest increase in defense funding is provided that significantly reduces. The strategy also accepts that defense funding may fall short of the departing Obama administration's current projections—such as if the Budget Control Act constraints are retained. Should this condition obtain, the strategy offers a prioritized list of commitments for divestment.

## **Geostrategic Priorities**

The strategy assigns priority among the three revisionist powers and three military theaters of operation to China and the WPTO. The reasons for this are several, and they are compelling. They are informed by factors such as relative military potential, strategic depth, and strategic risk, both in the near term and out over the 20-year planning horizon.

#### **Military Potential**

Neither Russia nor Iran has China's economic or military potential. Nor is either likely to develop anything comparable to China's potential over the planning horizon. Although Russia has a more formidable nuclear arsenal, China—should it choose to do so—could field a nuclear arsenal that would match or exceed those of the United States and Russia under the terms of the New START agreement.

The WPTO is also the only theater where U.S. allies and partners do not enjoy an advantage over the principal revisionist powers in economic and military potential. In the ETO, both in terms of economic scale and technical sophistication, as well as manpower, America's NATO allies' assets far exceed those of Russia. Similarly, the loose and nascent coalition of strange bedfellows in the Middle East—that includes Egypt, Israel, Kuwait, Saudi Arabia, and the UAE—enjoys similar advantages relative to Iran. Simply put, America's allies and partners in both the European and Middle East theaters of operation are fully capable of creating and sustaining a favorable military balance with minimal direct U.S. support—should they choose to do so.

TABLE 9: RUSSIA AND PRINCIPAL NATO POWER GDP<sup>201</sup>

Country	GDP (Millions of U.S. Dollars)	
Russia	\$1,326,015	
Frontline States		
Baltic States	\$90,969	
Poland	\$474,783	
Subtotal	\$565,752	
Germany	\$3,355,772	
United Kingdom	\$2,848,755	
France	\$2,421,682	
Grand Total	\$9,191,961	

TABLE 10: IRAN AND PRINCIPAL MIDDLE EAST FRONTLINE STATE GDP<sup>202</sup>

Country	GDP (Millions of U.S. Dollars)
Iran	\$425,326
Frontline States	
Egypt	\$330,778
Israel	\$296,075
Saudi Arabia	\$646,001
UAE	\$370,292
Grand Total	\$1,643,146

#### Strategic Depth

Strategic depth, or lack thereof, is an important factor in the military competition along the Eurasian periphery. For those that enjoy strategic depth, a strategy relying on defense in depth (or a "layered" defense) becomes possible, as does the option of trading space to gain time so as to achieve a more advantageous position—such as gaining time for mobilizing forces or inducing a powerful state to enter the war as an ally. Both the War of 1812 against Napoleonic France and the "Great Patriotic War" against Nazi Germany are but two of many examples of how a country, in this case Russia, employed strategic depth to its advantage. Those lacking strategic depth can be at a severe competitive disadvantage. In the two world wars, for example, France, with its industrial heartland located in the northeast near Germany, was compelled to defend forward, and it did so at great cost. In World War II, France's lack of strategic depth was a significant cause of her rapid defeat. Similarly, during the Cold War, West Germany, lacking strategic depth, was committed to meeting any Warsaw Pact attack at the Intra-German border.

In terms of what it seeks to defend, the United States lacks strategic depth in the Western Pacific. It has alliance commitments to Japan and the Philippines, and a longstanding security commitment to Taiwan. Both Japan and Taiwan lie in proximity to China. Recent Chinese moves to militarize natural and artificial South China Sea Islands find the Philippines losing much of its strategic depth. This situation drives the United States toward a forward defense posture in the WPTO. Adopting any other posture, such as the mobilization posture the United States employed before the two world wars, would signal a political abandonment of two key allies and a long-term security partner. Failing to defend forward would also risk having Japan, the world's third-largest economy and one of its most advanced industrial states, fall under China's influence—bringing about a dramatic shift in the global power balance in Beijing's favor. Finally, if the United States were to adopt a defense posture that accepts the

loss of the FIC on the presumption that it could be retaken—similar to Western Europe and the Western Pacific in World War II, South Korea in the Korean War, and Kuwait in the First Gulf War—it would be a high-cost, high-risk approach. Given China's rapidly advancing A2/AD capabilities and the absence of major U.S. bases along the second island chain (save for the outpost of Guam), it is difficult to see how the United States could launch a successful counter-offensive to retake the FIC at anything approaching an acceptable cost, if it could do so at all.

On the other hand, the United States enjoys great strategic depth in Europe, providing a greater opportunity to recover from initial setbacks. America's great power NATO allies—Britain, France, and Germany—all lie hundreds of miles from the Russian border. U.S. and other allied militaries can deploy reinforcements in the alliance's large western European "rear area" in relative safety. Given the current limitations on Russia's ground forces, even if they could seize the Baltic States and Poland, they would likely require several months to reorganize and refit before attempting any further movement westward. In the Middle East, Iran presents far less of a military threat than do China or Russia in the WPTO or ETO, respectively. Initial losses in the Middle East are likely to be offset at less cost than those in Eastern Europe and, especially, in the Western Pacific.

#### Strategic Risk

While it should plan to avoid such a situation, *in extremis* the United States and its allies could lose all of Eastern Europe to Russia and still preclude it from dominating the Continent. Even if Iran came to dominate much of the Middle East, the United States would still possess far greater economic and military potential than this latter-day Persian–Islamic Empire. The same cannot be said, however, with respect to the Western Pacific, which is the only theater in which a great power U.S. ally, Japan, is a frontline state. Were Japan to be subjugated or, more likely, Finlandized<sup>203</sup> by China, the military balance in the Western Pacific would shift decisively in China's favor. Given the cascading effect, this shift would almost certainly have on other powers in the region, the result would very likely be catastrophic for the U.S. position.

**TABLE 11: GEOSTRATEGIC PRIORITIES** 

Theater of Greatest Threat	Theater Lacking Strategic Depth	Great Power Frontline Ally at Risk	Allies Least Capable of Mounting an Independent Defense
WPT0	WPTO	WPTO	WPTO
ETO	ETO		METO/ETO
МЕТО	МЕТО		

#### **Force Posture**

Given the analysis presented in the preceding section, the strategy accords priority to the Western Pacific as by far the principal focus of U.S. defense efforts. The United States should adopt a forward defense posture in the Western Pacific while emphasizing expeditionary postures in both Europe (as its second priority), and the Middle East (as its third priority). (See Table 12 below)

The priorities established here among the three theaters of operation should be viewed in a manner similar to those in the U.S. World War II strategy of "Germany First." Although the defeat of Germany was indeed the highest priority, the war in the Pacific was hardly ignored. Similarly, the relative allocation of forces among the three theaters in the event of simultaneous acts of aggression will depend on the specific circumstances encountered at the time.

	WPTO Forward Defense	ETO Rapid Reinforcement	METO Advise and Assist
Major War Force	Forward Deployed to WPTO		
Air and Naval Operational Reserves	Forward Deployed to WPTO		
Theater Expeditionary Forces		First Priority	Second Priority
Counter-Offensive/ Forcible Entry Forces	First Priority	Third Priority	Second Priority
Strategic Reserves	First Priority	Second Priority	Third Priority

## **Western Pacific Theater of Operations**

#### **Forward Defense**

The U.S. objective is to deter China—and, secondarily, North Korea—from achieving revisionist aims through acts of aggression or coercion, principally by establishing a favorable military balance that enables a successful defense of the three states comprising the FIC and, by extension, other like-minded states in the WPTO. Should deterrence fail, the objective is to defeat Chinese and/or North Korean aggression and terminate the war as quickly as possible on terms favorable to the United States and its allies. Toward this end, the strategy calls for the United States to develop a forward defense-in-depth posture of U.S. and allied forces along the FIC, and between the first and second island chains, as well as with other like-minded

states.<sup>204</sup> Given China's A2/AD capabilities, in the event of war, the U.S. military will likely find it prohibitively costly to reinforce its forward-based forces, at least early in the conflict. Therefore, the United States will need to increase its current force levels in the WPTO substantially along with their logistics stocks.

Japan is preparing to assume the lead for its own defense and, by extension, the defense of the northern sector of the FIC.<sup>205</sup> Over time U.S. forces, primarily Army units emphasizing cross-domain<sup>206</sup> operations, should be gradually introduced in forward-deployed rotations to supplement Japan Ground Self-Defense Force (JGSDF) units currently engaged in developing a similar posture and capabilities.<sup>207</sup>

The United States should assume primary responsibility for the southern sector of the FIC, to include defense of the Philippines and covert assistance to Republic of China (Taiwan). To raise the cost of Chinese aggression and delay their ability to consolidate their gains and expand their A2/AD zones in the event frontline states—the Philippines, Taiwan, and Vietnam—are the victims of aggression, these states should be assisted in creating resistance forces capable of conducting advanced irregular warfare operations. Toward this end, the United States should work on reducing tensions with the Rodrigo Duterte government. This, along with the ending of the U.S. arms embargo of Vietnam, provides the United States with an opportunity to turn China's military incursion in the South China Sea into a highly vulnerable salient, restoring U.S. positional advantage over China and providing a stronger anchor for the southern sector's defenses.

In addition to the emphasis on the Philippines, Taiwan, and Vietnam, efforts should be made to enlist the active support of Indonesia, Singapore, and South Korea. South Korea has the potential to threaten China's flank along the FIC's northern sector, while Indonesia could further solidify the defense of the southern sector, to include providing important positional

- 204 For a more detailed description of this defense posture, see Andrew F. Krepinevich, "How to Deter China: The Case for Archipelagic Defense," Foreign Affairs, March—April 2015.
- 205 Author's discussions with General Koichiro Bansho, Commander, Japan Ground Self-Defense Forces, Western Army, and his staff, Kengun Base, May 18, 2015.
- 206 As the term suggests, ground forces engaged in cross-domain operations are engaged in warfare beyond the land domain. Such operations could involve coastal defense anti-ship missile artillery forces, extended-range missile strikes, and air and missile defense operations.
- 207 "Transformation of Western Army," briefing, Japan Self-Defense Ground Forces, Western Army Headquarters, May 18, 2015.
- 208 For a detailed discussion of the kinds of forces and operations that would characterize indigenous defense activities in the Philippines and especially Taiwan, see Jim Thomas, John Stillion, and Iskander Rehman, Hard ROC 2.0 (Washington, DC: Center for Strategic and Budgetary Assessments, 2014).
- Should these efforts fail, increased emphasis should be accorded to establishing closer relationships with Vietnam as well as Indonesia and Singapore. Simultaneously, a narrative should be developed and promoted among the Filipino people stressing the risks posed by an accommodation with China. As of this writing, President Duterte appears to be staking out a more independent foreign policy than his predecessors, but one that stops short of producing a full rupture in his country's relationship with the United States. See Chris Larano, "Philippine President Duterte Seeks to Clarify Call for 'Separation' from U.S.," *Wall Street Journal*, October 21, 2016, available at http://www.wsj.com/articles/philippine-leaders-call-for-separation-from-u-s-sows-confusion-1477053639.

advantage relative to PLA forces operating in the South China Sea, as well as supporting distant blockade operations in the event of war.

#### **Operational Reserve**

Japanese air and naval forces, along with the JGSDF mobile Western Army units,<sup>210</sup> should serve as an operational reserve in the northern sector, while U.S. air and naval forces (including those of the U.S. Marine Corps) function in a similar role along the entire FIC, with priority accorded to the southern sector; specifically, the Philippines and Taiwan, and perhaps Indonesia and Vietnam.

If necessary, American and Japanese operational reserve forces can support U.S. Marine Corps and selected U.S. Army (Special Operations Forces, Ranger, Airborne, Air Assault) forces positioned along the WPTO rim in conducting counter-offensive operations. These forces must be prepared to act promptly to recover lost territory before enemy forces can establish A2/AD defenses in newly occupied areas.

Australia may be relied upon to provide reserve forces for the southern sector. Its air and naval forces are small compared to those of the United States, and their range is quite limited as well. They are, however, generally of high quality and are capable of providing significant support to allied operations in Southeast Asia.

Australia's army is also a relatively small force that punches well above its weight. Given the logistical challenges of projecting and sustaining ground forces along an archipelago contested by rivals with overlapping A2/AD capabilities, they are likely to be limited to relatively small numbers in contested areas. Thus, emphasis is likely to be on force quality over quantity in both power projection offensive and counter-offensive operations. Under such circumstances, the Australian Army could prove a highly valuable asset.

Although located in South Asia, India could emerge as a key ally or security partner of the United States through its ability to influence the WPTO military balance indirectly by diverting substantial Chinese resources away from areas opposite the FIC. For example, large Indian air and ground forces positioned along that country's common border with China would likely compel a countervailing response from Beijing. To be sure, India's close coordination with the United States in the WPTO is far from assured. Despite the growing power of China and the efforts of U.S. administrations going back decades to establish a closer security relationship with New Delhi, India has proven to be a reluctant partner. That said, Beijing's provocative move in the South China Sea and its cultivation of Burma and Pakistan, which lie on India's eastern and western flanks respectively, may present an opportunity for the United States to

<sup>210</sup> The JGSDF is establishing a rapid deployment brigade capable of conducting amphibious assault operations and reorganizing its 8th Division as a rapid deployment force. "Transformation of Western Army," briefing, Japan Self-Defense Ground Forces.

expand its Tokyo–Washington coalition to include New Delhi, if only informally.<sup>211</sup> If so, the opportunity should be pursued vigorously.

In an extended conflict with China, economic warfare is likely to exert a significant, and perhaps decisive, effect on the outcome. The United States economy almost certainly will be under cyber attack, along with its undersea energy and telecommunications infrastructures. U.S. and allied forces may also be required to seize Chinese owned and operated ports in places like Darwin in Australia. The U.S. military should be capable of executing kinetic and cyber strikes against Chinese economic targets, with the former relying principally on long-range precision strike forces capable of operating effectively in non-permissive environments against advanced A2/AD defenses. Distant maritime blockade operations should be conducted primarily in Southeast Asia by land-based ground and air forces, supported to the maximum extent by allied forces.<sup>212</sup> This will free up U.S. and allied air and naval forces to function as an operational reserve along the FIC and support counter-offensive operations as necessary.

## **European Theater of Operations**

The European Theater of Operations is accorded second priority in the Eurasian defense strategy. The U.S. strategic objective is to support NATO East European frontline states—principally the Baltic States and Poland but also Hungary, the Slovak Republic, Romania, and Bulgaria—to deter and, if necessary, defeat any Russian aggression and end the conflict as quickly as possible on terms favorable to the United States and its allies. This defense posture is informed by Russia's relatively limited conventional force military potential, NATO's considerable strategic depth, the need to prioritize the U.S. military posture in the Western Pacific, and potential U.S. force requirements for the Middle East and homeland defense.

It is also shaped by the fact that the European NATO countries enjoy numerous advantages over Russia with respect to military potential, to include economic might, manpower, and technological sophistication. Simply stated, unlike the U.S. allies in the Western Pacific, the European NATO allies are fully capable of establishing and maintaining a favorable military balance against Russia. Practically speaking, however, internal security concerns such as radical Islamist terrorist groups, economic stress due in part to demographic trends and Entitlement State demands, as well as a strong propensity to "free ride" on the United States for their security seem likely to exert substantial constraints on U.S. allies' defense efforts.

<sup>211</sup> Recent developments between the two powers appear promising. In May 2016, American and Indian officials held a "maritime security dialogue" in New Delhi. The United States and India are also negotiating a "Logistics Support Agreement" that will enable each country's military to use the other's land, air, and naval bases for resupplies, repairs and to conduct operations. Kevin Knodell, "China's Worst Nightmare: Is a U.S.-India Military Alliance Brewing?" *The National Interest*, May 20, 2016, available at http://nationalinterest.org/blog/the-buzz/chinas-worst-nightmare-us-india-military-alliance-brewing-16301.

<sup>212</sup> For a discussion of operations associated with protracted conflict with China in the WPTO, see Jan van Tol et al., AirSea Battle: A Point-of-Departure Operational Concept (Washington, DC: Center for Strategic and Budgetary Assessments, 2010), pp. 74–79.

This is unlikely to change absent Russia's reestablishing the kind of dominance it enjoyed in Eastern Europe similar to what it enjoyed during the Cold War.

Yet given the demands for U.S. forces in the other two Eurasian theaters—especially the Western Pacific—and the prospect of declining resources for defense, U.S. European posture is limited to deploying modest air and ground forces to Eastern Europe along the lines described above, supplemented by pre-positioned equipment and logistics stocks.

The principal mission of these forward-deployed forces would be to improve the front-line states' defense against Russian ambiguous irregular warfare and to serve as a deterrent against large-scale, overt forms of Russian aggression. With respect to the former mission, the United States should deploy security assistance forces that have proven effective in supporting friendly indigenous forces against enemy irregular forces, such as Special Operations Forces (SOF) to help build partner capacity against gray zone aggression, along with stealthy armed information, surveillance, and reconnaissance (ISR) UAVs and manned combat air elements to provide reconnaissance and strike support.

The frontline states' forces must also be prepared to operate in a non-permissive environment against the type of warfare waged by Russian forces in Eastern Ukraine and supported by Russian A2/AD assets. To address this threat, the United States should join its East European allies in fielding A2/AD capabilities to deter and, if need be, defeat overt Russian aggression. With U.S. support, these states should field integrated air defense systems and ground forces armed with G-RAMM munitions. These indigenous forces should be supported by U.S. and NATO Special Operations Forces with access to U.S. and major European NATO ally air and missile assets.

Additionally, a modest U.S. (and hopefully West European NATO) ground force contingent should be forward deployed. These forces would work with frontline state ground forces to thicken their A2/AD capabilities, emphasizing cross-domain missions—such as air, missile, and coastal defense.

#### **Operational Reserve**

Absent a significantly greater effort on the part of U.S. European allies and Canada, the forces available to form an operational reserve would be modest. This is by necessity, not design. Strategy is about setting priorities and allocating risk. The expeditionary U.S. forces based in CONUS are anticipated to be sufficient to address a major contingency in the European or the Middle East theaters of operations but not both simultaneously. Thus additional forces

can be forward deployed to Europe, but only at the expense of taking on additional risk in the Middle East.<sup>213</sup>

U.S. reinforcements must also be capable of operating effectively in an A2/AD environment. Ground formations would almost certainly need to be substantially different in structure and doctrine from the brigades and divisions deployed to Europe during the Cold War, or in the Middle East during the two Gulf wars. Like their forward-deployed Army counterparts in the Western Pacific, reinforcing Army units would emphasize cross-domain operations: air defense, missile defense, and long-range rocket artillery.

Unlike Army units based along the FIC archipelago in the Western Pacific, however, these ground forces would also need to maneuver to seize and hold territory. Assuming Russian A2/AD forces are effective, U.S. ground forces would have to operate in a far more dispersed manner than they did, for example, in the era that lasted from World War II through the period of major combat operations in the Second Gulf War. Such dispersed operations would place a premium on resilient communications and light units armed with G-RAMM capabilities, as well as heavy mechanized forces and aviation elements. In brief, we are talking about a new kind of Army brigade.<sup>214</sup>

Viewed from the perspective of a First World War–Western Front analogy, the Russians can be seen as establishing their defensive "trench line" in the form of their A2/AD capabilities projected into NATO's frontline states, while the "Little Green Men" are their equivalent of Germany's *Strosstruppen* (storm troopers). The U.S. strategy calls for assisting the NATO frontline states in creating their own A2/AD "trench line" and forces capable of defending against Russian "storm trooper" offensives. The U.S. ground forces described here—including elements of American expeditionary forces—when combined with air and naval forces within a joint and combined battle network supported by long-range strike forces, would be employed to reduce Russian A2/AD forces enough to enable successful NATO counter-offensive operations.

- While beyond the scope of this paper, an analysis should be undertaken with respect to the efficacy of basing a significant part of the U.S. expeditionary force forward in Europe, a force which would be capable of deploying to the Middle East should the necessity arise. Arguably, given their relative proximity to that region, U.S. forces in Europe could be moved to the Middle East more quickly than those based in CONUS. On the other hand, depending upon the situation in Europe, such a move might be viewed by frontline states as an act of abandonment.
- Several of the world's leading armies have, with varying degrees of success, blended various ground force elements to realize a major boost in effectiveness. The classic example is the German Army's development of the Panzer division in the 1930s, which combined various elements (such as tanks, motorized infantry, self-propelled artillery, signal units, and motorized engineers) to enable it to wage a form of mechanized warfare that, when combined with air forces, enabled it to conduct operations that became known as a *Blitzkrieg*, or "lightning war." In the 1950s and 1960s, the U.S. Army was the first to introduce units centered on aviation formations successfully into its force structure. These efforts required persistent analysis, war gaming, and field exercises in order to identify the optimum mix of force elements. A similar effort is needed to determine the structure of the kind of combat formation discussed here. The reader should note that, in this paper's notional defense program, the increase in Army armor brigades is used as a surrogate for the funds needed to develop this new maneuver brigade.

Moscow enjoys the initiative in that it can choose the time, place, and target of its aggression. Thus for both deterrence and warfighting purposes, U.S. forward-deployed forces must be positioned along the entire length of NATO's eastern border with Russia, and likely Belarus. Priority for these deployments should be to the Baltic States—where NATO lacks local strategic depth—and Poland, which is essential to NATO's ability to reinforce the Baltic States to the north or the Balkan States to the south.

Russian forces in the Kaliningrad Oblast can pose a major potential threat to NATO forces in Poland and the Baltic States, and to NATO's ability to reinforce them. Consequently, NATO forces must be prepared to isolate and destroy these forces promptly in the event of war. As U.S. forward-deployed forces will likely be relatively modest at the war's onset, the forces to accomplish this task will have to come primarily from America's NATO allies and U.S. long-range precision strike forces—such as the U.S. Air Force's bomber force and the U.S. Navy's air and missile strike elements.

The advantage enjoyed by U.S./NATO forces in non-nuclear capabilities over Russia makes it in the U.S. interest to deter Russia from executing its escalate-to-deescalate doctrine. In order to do this, given changes in the character of the strategic strike competition, an updating of the so-called escalation ladder is needed.<sup>215</sup>

Should Finland and Sweden become NATO allies (or security partners), they could provide a significant boost to the frontline states' defenses, while greatly enhancing NATO's strategic depth in the Baltic region. As with India, however, both of these Scandinavian states have long traditions as neutral powers. Yet given the rise of Putinism and ongoing acts of Russian coercion and aggression, these two countries may conclude that their security is better secured inside the NATO tent than outside it. The Alliance should promote opportunities to cooperate with Finland and Sweden even short of NATO membership.

In summary, the U.S. defense posture in the ETO calls for taking the lead in building partner capacity of the frontline states against low-level aggression and the threat of general war. Toward this end, the frontline states, with U.S. (and hopefully West European NATO) support, have the lead in addressing the low-end "Little Green Men" threat. In the event of general war, NATO can exploit its strategic depth, enabling forward forces to trade space for time, if need be, until reinforced by U.S. and Western European expeditionary forces. Once Russian A2/AD forces are sufficiently reduced, counter-offensive operations can be undertaken to recapture lost territory.

The United States, through its "combined arms" strategic strike forces, has primary responsibility for deterring Russian use of nuclear weapons. Again, this will require a careful

<sup>215</sup> In particular, the United States appears to lack a countervailing option to the Russian use of very-low-yield nuclear weapons, or nuclear weapons used to generate electromagnetic pulse (EMP) effects. For a discussion of the blurring of the conventional-nuclear force firebreak, see Barry D. Watts, Nuclear-Conventional Firebreaks and the Nuclear Taboo (Washington, DC: Center for Strategic and Budgetary Assessments, 2013), pp. 26–45. At a minimum, it would appear the United States would benefit from developing offsetting capabilities similar to those possessed by the Russians.

assessment of the strategic escalation ladder from both the United States and, especially, the Russian perspective to identify ways to minimize Moscow's incentives to cross the nuclear threshold.

## **Middle East Theater of Operations**

U.S. objectives in the Middle East are to prevent Iran from establishing a hegemonic position in the region, either on its own or in conjunction with China or Russia; to prevent the region's energy resources from falling under the control of a hostile power or group; to prevent Iran or radical Islamist groups from overthrowing the governments of key partners in the region; and to preclude radical Sunni Islamist groups from acquiring the ability to conduct large-scale terrorist strikes against the United States or major U.S. overseas bases. A key second-order objective is to prevent the proliferation of nuclear weapons in the region, and to Iran in particular.

#### **Advise and Assist**

Given Iran's limited conventional force military potential; its relatively modest ability to prevent the deployment of U.S. forces into the region; and the higher priority accorded to the U.S. military posture in the Western Pacific and Europe, the METO is accorded third priority in the U.S. Eurasian defense strategy.

As with Russia in Europe, the principal immediate challenge from Iran (to include its proxies) and from radical Sunni Islamist groups comes in the form of advanced irregular warfare, albeit on a considerably more modest scale. Thus, as in Europe, the United States needs to accord priority in the near term to defeating enemies waging this form of war. Unlike in the European theater, however, the United States does not enjoy the benefit of formal allies or reliable access to major forward bases. Nor is this situation likely to change in the near future.

Importantly, Israel's ability to dominate Iran in the conventional and nuclear competition over the near- to mid-term, along with the modest forces of Sunni Arab states like Saudi Arabia and the United Arab Emirates, provide a favorable military balance against Iran to discourage it from undertaking overt acts of aggression. This can enable the United States to emphasize supporting efforts by local security partners to counter Iranian proxy forces and the major Sunni radical Islamist groups. Given these considerations, the U.S. military effort in the METO emphasizes modest increases in forward-deployed training and advisory forces to support partner states' efforts to suppress radical Sunni Islamist groups, and counter Iranian moves to establish regional dominance. Additionally, some additional direct support over what is currently provided to partner states and non-state groups—such as the Kurds—can be made available in the form of U.S. C4ISR assets, air strikes, and Special Operations Forces engaged in combat (direct action) and combat support missions.

### **Operational Reserves**

Should a large-scale threat to U.S. interests arise, the forces comprising this modest U.S. regional footprint can be augmented by elements of U.S. expeditionary forces positioned outside the METO. These forces must be prepared, in conjunction with host nation and allied forces, to conduct operations to ensure the security of major energy extraction, production, and transportation facilities along the southern Persian Gulf littoral, as well as the shipping lanes through the Gulf itself.

Toward this end, U.S. expeditionary forces must be prepared to undertake operations to seize and hold the northern littoral of the Persian Gulf—that is to say, southern Iran. These forces would likely be similar in character to those needed for counter-offensive operations in the Western Pacific. They would draw upon Army airborne, Ranger, and air assault units, along with Marine Corps expeditionary air and land forces. Army cross-domain forces—such as air and missile defense, coastal defense, and rocket artillery units—could also play important roles, especially if they can be deployed in states bordering the Gulf's southern littoral. Although based primarily in the WPTO, U.S. Air Force and Navy ISR and strike elements could be shifted to support such a campaign.<sup>216</sup> American long-range precision strikes, along with cyber strikes, could also be brought to bear in support of forcible entry and sustained combat operations in the theater.<sup>217</sup>

## **Eurasian Expeditionary Force and Strategic Reserve**

As noted earlier, given resource limitations U.S. expeditionary forces are only likely to be sufficient to address a major European or Middle East contingency, but not both simultaneously. Similarly, the kinds of U.S. forces conducting counter-offensive forcible entry operations would likely be sufficient to address either a Western Pacific or a Middle East contingency, but not both simultaneously. Therefore, priority should be given to encouraging allies and partners in both Europe and the Middle East to field forces that can supplement U.S./ allied capability.

While they can be viewed as an element of the U.S. military's expeditionary force, U.S. prompt conventional global strike forces—to include global C4ISR assets; long-range precision strike and cyber strike force packages; and theater air and missile defenses—constitute a *strategic reserve* that can be deployed with relative speed to any of the three regions. In addition to acting as a deterrent force in all three theaters, the strategic reserve can be employed to blunt aggression, buying time until American and allied operational reserves or expeditionary

<sup>216</sup> Of course there is an element of risk in moving forces away from the principal theater of concern. The United States successfully took such a risk during both the Korean and Vietnam wars. Yet prior success does not guarantee a similar outcome should such a calculated risk be taken in the future.

<sup>217</sup> For a point-of-departure operational concept describing how U.S. forces might execute this strategy, see Mark Gunzinger, Outside-In: Operating from Range to Defeat Iran's Anti-Access and Area-Denial Threats (Washington, DC: Center for Strategic and Budgetary Assessments, 2011).

forces can deploy while degrading enemy A2/AD capabilities. The strategic reserve can also be employed in support of U.S. counter-offensive forces at the decisive point of attack. Given their ability to contribute to operations in any theater on short notice, and to be shifted quickly from one theater to another, the forces comprising the U.S. strategic reserve should be accorded priority in U.S. defense investments.

### **The Commons**

As Jakub Grygiel observes,

A state that controls the lines of communication has full strategic independence. It does not have to rely on the goodwill and protection of other states to access the resources it needs, project power where it wants, and maintain commercial relations with whom it wants. When a state does not have control over the routes linking it to the source of resources and other strategic locations, it falls under the influence of the power in charge of those lines of communication.<sup>218</sup>

U.S. ability to deploy forces to the three theaters of operation along the Eurasian periphery and sustain them at high levels of combat readiness is closely related to its access to the global commons: space, cyberspace, the air, the seas, and undersea. Such access is also essential to participating in the global economy. Thus preserving access to the global commons while denying them to America's enemies can be an important component of economic warfare and a major potential source of U.S. competitive advantage, particularly in a protracted conflict. As described above, the revisionist powers—particularly China—are fielding capabilities designed to deny the United States access. Consequently, increased attention must be given to preserving access to the global commons linking the United States with its allies and security partners in the Eurasian theaters of operation. Moreover, should a war become protracted, U.S. forces, in conjunction with those of its allies and partners must become capable of conducting both blockade and counter-blockade operations. 219

## **Strategic Warfare**

Thinking about military operations involving the use of nuclear weapons faded during the Cold War when both the United States and the Soviet Union amassed large nuclear arsenals rendering each capable of annihilating the other. Today there are a number of small nuclear powers, with perhaps more to follow. There also exists the possibility that non-state entities could acquire nuclear, or radiological, weapons. Thus, the nuclear competition has become increasingly multipolar and seems likely to continue on this path—especially if Iran acquires a nuclear capability, or China decides to match the two major nuclear powers' arsenals.

<sup>218</sup> Jakub Grygiel, Great Powers and Geopolitical Change (Baltimore, MD: The Johns Hopkins University Press, 2006), p. 27.

<sup>219</sup> This paper focuses on strategy rather than operational concepts. That said, for a point-of-departure operational concept for how the U.S. fleet might work with land-based ground and air forces to preserve the required access to the global commons, see Krepinevich, Maritime Competition in a Mature Precision-Strike Regime, pp. 82–121.

As noted above, the competition is also becoming more multidimensional. Certain technologies—such as kinetic and directed energy air and missile defenses, stealth, cyber payloads, and guided weapons—have advanced considerably since the Cold War's end and could exert a major influence on the nuclear balance between regional or lower-tier nuclear powers. Much the same can be said with respect to biological warfare. In brief, what has been traditionally termed the "nuclear balance" is more accurately described today as the "strategic balance," as some targets that were once exclusively reserved for nuclear weapons can now be assigned to conventional precision strike or cyber forces. In particular, just as defense against a nuclear-armed ballistic missile has proved challenging, the task of blocking a major cyber strike may prove equally daunting.

The shift to a multipolar and multidimensional strategic competition is fraught with uncertainty. It is not clear whether the spread of these capabilities will make it more or less attractive for a revisionist power to engage in strategic warfare, or to employ nuclear weapons.<sup>220</sup>

There is a need to rethink the problem of limited nuclear war in which the United States is a direct participant, or between other parties where the United States has a major security interest. As opposed to the global apocalypse envisioned in the wake of a superpower nuclear exchange during the Cold War, there will very likely be a functioning world after a war between minor nuclear powers, or even between the United States and a nuclear-armed Iran or North Korea. U.S. forces must, therefore be prepared to respond to a range of strategic warfare contingencies along the Eurasian periphery. The U.S. military's ability to conduct operations to end such a conflict promptly and on favorable terms, as well as in a manner that discourages future nuclear use, could be crucial to America's long-term security. Of course, U.S. strategic capabilities could also play an important role in preventing or deterring nuclear conflict in the first place.

This reinforces the point made earlier in this paper that far greater thought and analysis need to be given to identifying the new escalation ladder in the contemporary strategic warfare competition than has been the case to date. The same is true for developing a better understanding of how the revisionist powers and other nuclear powers—such as India, North Korea, and Pakistan—along the Eurasian periphery view strategic warfare and the circumstances under which they would employ nuclear weapons.<sup>221</sup>

<sup>220</sup> For a detailed discussion of the dynamics of such a competition as they pertain to the Middle East, see Andrew F. Krepinevich, Critical Mass: Nuclear Proliferation in the Middle East (Washington, DC: Center for Strategic and Budgetary Assessments, 2013).

 $<sup>{\</sup>tt 221} \quad \text{For a discussion of contemporary nuclear contingency planning, see Krepinevich and Cohn, $\textit{Rethinking Armageddon}$.}$ 

### **Temporal Factors**

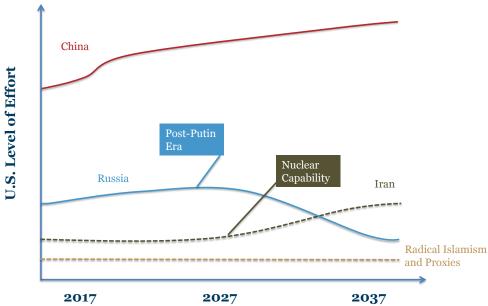
Given this strategy's 20-year planning horizon, the assumption that security competition between the United States and its allies/partners and the revisionist powers and their client/ proxies is likely to be protracted, and that the character of warfare seems likely to undergo several major shifts over the next decade or so, consideration must be given to how the military competition along the Eurasian periphery might develop over time.

### Geopolitical

Given the trends elaborated upon earlier in this paper, it seems quite possible that Russia will continue its decline and that it may well come to see its principal security challenges coming not from the west, from the United States and NATO, but rather from the south in the form of radical Islamism, and from China in the east. If so, it would be a welcome development for the United States, as current trends suggest that China's ability and incentive to challenge the United States militarily are very likely to increase, with the same being true of Iran if it acquires a nuclear capability.

With its fiscal standing in decline and absent strong measures to address the problem, the United States may well find itself hard-pressed to maintain a favorable military balance in the WPTO. Should Russia reorient its security focus to the south and east, it would enable the United States to shift resources dedicated to the ETO to address shortfalls in the Western Pacific. It might also offer the U.S. military new sources of positional advantage should China feel compelled to divert resources to address a security challenge to its north.

FIGURE 3: PROSPECTIVE SHIFT IN THE GEOPOLITICAL COMPETITION OVER TIME



#### The Battle of the Narrative

As they were formulating strategy in the early days of the Cold War, the authors of NSC 68 and NSC 162/2 devoted significant attention to the social dimension of strategy formulation and execution. <sup>222</sup> Today the United States devotes insufficient attention to winning the "battle of the narrative" both at home and abroad, among enemies and allies alike. The American people in particular need to be engaged on the need to restore their country's fiscal standing and devote more attention and resources to the country's defenses.

The barriers to establishing competence in this area of the competition with the revisionist powers, let alone an advantage, are many, and they are formidable. First, U.S. national security leaders must educate the American people on the threats to the country's vital security interests and economic well-being. Second, they must present a strategy that can address these threats at an acceptable level of risk. Third, a case must be made for the resources necessary to execute the strategy, and the sacrifices that will be required to liberate these resources. This implies a long overdue plan to reverse the country's rapidly declining financial standing, one that avoids further aggravating efforts by some to pit various groups of Americans—young and old; rich and poor; urban and rural—against one another. Fourth, given that the United States is likely in a long-term competition with the revisionist powers, this effort must be capable of being sustained over time. A similar effort to make the U.S. case must be undertaken abroad, especially to key existing and prospective allies and partners. Finally, a strategy to take America's case to the revisionist powers' publics must be developed and implemented.<sup>223</sup>

### The Military-Technical Competition and Search for the Next Big Thing

Any Eurasian defense strategy designed for a protracted competition must take into account the long-term military-technical competition between the United States and the revisionist powers. Developing new sources of competitive advantage that will enable America's armed forces to sustain favorable positions/balances in the three Eurasian theaters of operation and in critical functional areas—such as strategic warfare—is central to this competition. Moreover, given the highly uncertain and dynamic security environment described earlier in

<sup>222</sup> For example, NSC 68 concludes that "The assault on free institutions is world-wide now, and in the context of the present polarization of power a defeat of free institutions anywhere is a defeat everywhere.... It is only by developing the moral and material strength of the free world that the Soviet regime will become convinced of the falsity of its assumptions and that the pre-conditions for workable agreements can be created." (Note that pride of place is accorded to "moral" strength before "material" strength.) Following the Solarium exercise exploring U.S. strategic options that led to NSC 162/2, President Dwight Eisenhower concluded that "Everything is shifting to economic warfare, to propaganda, and to a sort of peaceful infiltration.... [T]his judgment is my own. It is taken after many long, long years of study of this problem." Quoted in Robert H. Ferrell, ed., *The Diary of James C. Hagerty: Eisenhower in Mid-Course, 1954–1955* (Bloomington, IN: Indiana University Press, 1983), p. 134.

<sup>223</sup> On the prospective internal weaknesses of the two great revisionist powers, see Minxin Pei, *China's Crony Capitalism: The Dynamics of Regime Decay* (Cambridge, MA: Harvard University Press, 2016); and "Inside the Bear," *The Economist*, October 22, 2016, pp. 3–16.

this paper, there is a strong need to create capability options as a means of mitigating the risk that the U.S. military could place some wrong "bets" when it comes to equipping its forces.

Current technology trends also suggest the potential for one or more new "big things" to emerge that will substantially change the character of warfare. History suggests that those militaries that identify these new forms of warfare will enjoy a major advantage over their rivals. Thus there is great incentive to be the first, or among the first, to identify and exploit the "next big thing" (or things)<sup>224</sup> in warfare.<sup>225</sup> But it's not clear which promising new capabilities and associated operational concepts will yield a major boost in military effectiveness.

What might the U.S. military do to identify the next breakthroughs in warfare? History suggests that before proceeding to make major systems choices in its defense program, the U.S. military should undertake a sustained experimentation program with the objective of exploiting emerging technologies within the context of new operational concepts oriented on dominating key military competitions.

Although much has been accomplished by the U.S. military and other armed forces—such as the Israeli Defense Force—in recent years with regard to developing new methods of operation against enemies waging modern irregular warfare, much remains to be done to address the challenges posed by A2/AD forces, new methods of waging strategic warfare, and the spread of warfare into new domains, among others. Moreover, the U.S. military needs to do more than react to its enemies—as has been the case with modern irregular warfare. Sustained and focused effort is needed to *anticipate* how existing and prospective enemies are working to develop new sources of competitive advantages of their own and to develop counters to them. In brief, the U.S. military needs to explore ways to compel the revisionist powers to react to its initiatives in ways that impose disproportionate costs on them while shifting the competition into areas that favor the United States. Toward this end, detailed concepts of operation must be developed similar to the U.S. Army and Air Force's AirLand Battle concept and the U.S. Navy's Outer Air Battle concept that informed force structure requirements and investment priorities in the Cold War's last decade.

Unfortunately, there is typically great reluctance among the military services to undertake this kind of effort. While such efforts can reveal how the U.S. military can better invest its resources, organize its forces, and conduct operations, they also inevitably create "winners"

<sup>224</sup> The quest for the next big thing—the next big source of competitive advantage—is a core element of strategy. Its meaning is captured in an exchange between Richard Rumelt, one of the foremost U.S. strategists in the private sector, and Steve Jobs. In 1998 Jobs had returned to Apple as CEO. The company was in terrible shape. Rumelt met with Jobs. Both agreed the company could not move beyond a niche position in the personal computer business. Rumelt asked Jobs what he was going to do. Jobs replied, "I am going to wait for the next big thing." Rumelt, *Good Strategy, Bad Strategy*, p. 14. For an overview of how military organizations over the past century have sought to identify and exploit the next big thing in warfare, see Andrew F. Krepinevich, *Lighting the Path Ahead: Field Exercises and Transformation* (Washington, DC: Center for Strategic and Budgetary Assessments, 2002). See also Krepinevich, *7 Deadly Scenarios*, pp. 1–29, 285–319.

<sup>225</sup> For a discussion of the kinds of advantages that accrue to militaries that succeed in being the first to exploit a major breakthrough in warfare, see Andrew F. Krepinevich, "From Cavalry to Computer: The Pattern of Military Revolutions," *The National Interest*, Fall 1994.

and "losers" within and among the military services and their subcultures. Consequently, such an enterprise is often staunchly resisted. Evidence of this is found in the demise of Joint Forces Command. Established in 1999 to stimulate the development of innovative joint operational concepts, the command never fulfilled its charter, due primarily to a lack of leadership, obstructionism by the military services, indifference by senior Pentagon officials, and the growing emphasis on near-term military operations following the 9/11 attacks. <sup>226</sup> The command was disbanded in 2011, with the mission of developing innovative joint concepts of operation effectively becoming an orphan.

This situation need not—and should not—persist. The U.S. military has a long and often distinguished history when it comes to innovation. It is capable of living up to its legacy, provided it is supported by strong, sustained, engaged leadership and adequate material resources.<sup>227</sup>

## **Adapting the Force**

Given their strategic significance, priority should be given to developing, testing, evaluating, and refining combinations of existing and emerging capabilities as elements of operational concepts designed to enhance the U.S. military's competitive position in the following areas.

**A2/AD and Counter-A2/AD.** For the past quarter century, the U.S. military has grown accustomed to operating in permissive environments against minor powers or non-state irregular forces. The rise of the revisionist powers and their A2/AD capabilities presents a fundamentally new and far more severe strategic challenge to the U.S. military's ability to project power effectively and at an acceptable cost.

As the strategy focuses on maintaining a stable military balance in the three theaters comprising the Eurasian periphery, the U.S. military should at a minimum develop its own A2/AD capabilities to offset those of the revisionist powers. The strategy presented in this paper calls for it to do so in the WPTO and, to a lesser extent, the ETO.

In addition to offsetting rival A2/AD forces by fielding counter-A2/AD capabilities with U.S. characteristics, a high priority should be accorded to determining through a program of ongoing experiments at the operational level of war whether or not the emerging A2/AD threat represents an enduring "new normal" in warfare over the planning horizon—or if new

<sup>226</sup> These observations are based on the author's personal experience in the command's creation (which stemmed from a recommendation by the 1997 National Defense Panel on which the author served); service on the Joint Forces Command's Advisory Board from its inception to the command's dissolution; and a detailed review of the command's performance conducted at the request of its commander, General James Mattis, in 2008.

<sup>227</sup> Among the U.S. military's notable successes over the past century are the development of the carrier task forces that supplanted the battleship's long reign as the fleet's capital ship; the development of air assault forces; and the fielding of integrated battle networks and precision strike forces. Among the missed opportunities are the introduction of mechanized air-land operations (pioneered by the German Army and known as *Blitzkrieg*) and the development of integrated radio-electronic combat (pioneered by the Red Army during the Cold War).

methods of projecting power effectively and at an acceptable cost against an adversary with advanced A2/AD capabilities are possible. As China represents the pacing threat in this aspect of the military competition, the principal focus of the counter-A2/AD effort would be in the Western Pacific. Of course, modified versions of any promising operational concepts could prove effective in the ETO and METO as well.<sup>228</sup>

**Nuclear/Strategic.** On par with efforts to address the A2/AD challenge, the U.S. military needs to undertake the kind of detailed, persistent analysis on contemporary strategic warfare that was devoted to nuclear warfare in the Cold War's first two decades. As noted above, identifying the new horizontal and vertical escalation ladders is a matter of fundamental strategic importance. Thought needs to be given as to what can be done to deter the actual use of nuclear—and other strategic—weapons given recent and prospective proliferation, and to include its implications for U.S. strategy and military posture in the three theaters comprising the Eurasia periphery. As planning contingencies are identified and scenarios developed, operational concepts need to be formulated, tested, and refined to enhance the U.S. military's ability to deter nuclear use, arrest such use if deterrence fails, and bring the associated conflict to a prompt termination on grounds favorable to U.S. interests.<sup>229</sup>

For example, the U.S. military apparently lacks concepts of operations for conducting campaigns along the lines envisioned by current Russian doctrine, to include the use of EMP and very-low-yield nuclear weapons, or for deterring employment of such weapons. These kinds of contingencies will not be successfully addressed simply by adjustments to a Single Integrated Operational Plan (SIOP).<sup>230</sup> Moreover, given the multidimensional characteristics of the strategic strike competition, operational concepts emerging from an assessment of nuclear contingencies may well involve significant—and perhaps widespread—use of non-nuclear capabilities.

Some other prospective nuclear contingencies along the Eurasian periphery worth examining would be a North Korean "haystack" attack against Japan or South Korea; undertaking war termination operations should U.S. intervention be necessary in a limited nuclear war between India and Pakistan; and deterring or countering a "broad spectrum" strategic attack by China or Russia involving the employment of conventional precision-guided and cyber munitions,

- 228 Some thoughts on how this might be accomplished, with emphasis on the maritime domain, are presented in Krepinevich, *Maritime Competition in a Mature Precision-Strike Regime*, pp. 107–121.
- 229 There exists a wide range of plausible contingencies involving nuclear weapons beyond the "Armageddon" canonical scenario that dominated planning in the Cold War's latter stages. These contingencies range from a dirty terrorist bomb to the use of other radiological weapons against forward-deployed U.S. forces, a nuclear exchange between two other nations, or U.S. use of nuclear weapons. For a detailed exposition of these kinds of contingencies, see Krepinevich, 7 Deadly Scenarios, pp. 30–90, 125–168; and Krepinevich and Cohn, Rethinking Armageddon.
- 230 The SIOP was the United States plan in the event of a general nuclear war. It provided the president with a range of nuclear strike options. A series of SIOPs were developed and put into effect from 1961 to 2003, where upon the SIOP was superseded by Operations Plan 8044. In 2008 this plan was superseded by Operations Plan 8010, "Strategic Deterrence and Global Strike." Hans Kristensen, "Obama and the Nuclear War Plan," Issue Brief, Federation of American Scientists, February 2010.

nuclear EMP strikes, and the use of substantial numbers of low-yield nuclear weapons. Such an attack could prove devastating in its effects, but not catastrophic in the Cold War sense of destroying the United States as a functioning political, economic, and social entity.

Advanced Irregular Warfare. The character of irregular warfare continues to evolve rapidly, as witnessed by the differences between Hezbollah's operations in the Second Lebanon War in 2006—which led to the introduction of the term "hybrid warfare"—and the methods employed by Russia's "Little Green Men" in eastern Ukraine beginning with their attacks in May 2014. Should the U.S. military continue to focus on its experiences against far less capable irregular enemy forces in Afghanistan, Iraq, and the broader Middle East (such as ISIS), it risks reacting to shifts in this form of warfare rather than anticipating them. There are several possible next "big things" in irregular warfare, and concepts of operations must be developed to address them. One centers on the diffusion of low-end guided weapons (i.e., rockets, artillery, mortars, and missiles—G-RAMM) to irregular forces that could yield a discontinuous leap in their combat potential. Another involves the large-scale use of cyber, biological, and radiological weapons by irregular forces. Either development would present a challenge far more formidable than that encountered by U.S. forces in Afghanistan or Iraq, or than the Israelis confronted in the Second Lebanon War.

Although the U.S. military needs to develop operational concepts to counter these likely developments, it should also identify ways to exploit advanced irregular warfare operations to its advantage. In fact, irregular forces armed with G-RAMM capabilities play a significant role in the strategy presented above, in the form of ally and partner irregular units based in NATO's frontline states as well as in the Philippines, Taiwan, and Vietnam in the Western Pacific Theater of Operations. Indigenous forces, advised and assisted by U.S. Special Operations Forces, equipped with a mix of G-RAMM and low-tech air defense systems, and supported by U.S. C4ISR and extended-range strike forces, can do much to slow an enemy's momentum and impose costs in both manpower and materiel, while also buying time for counter-offensive forces to position themselves.

Maritime and Cyber Commerce Defense. The United States has come to assume unfettered access to the global commons as a "given." However, against an enemy equipped with A2/AD capabilities in an era where the United States and its principal allies rely heavily on global supply chains, just-in-time inventories, and an expanding undersea infrastructure for their prosperity, such an assumption is no longer warranted. The challenge of maintaining assured access to the air and maritime domains along the Eurasian periphery—the WPTO in particular—must be addressed, and soon. Similarly, the potential for cyber attacks against the U.S. financial sector, critical infrastructure, and other vital commercial services essential to forward operations in a protracted conflict warrants attention. Serious discussion of these issues in the U.S. and allied militaries is generally lacking, and detailed prospective operational concepts for addressing them practically non-existent. An important part of this effort involves exploring the issue of societal defeat criteria. By this is meant actions that would

cause American society to throw in the towel or accept defeat, as opposed to suffering defeat by force of arms.<sup>231</sup>

**Space.** America's assets in space, both those dedicated to commerce as well as defense, are becoming progressively more vulnerable. This presents U.S. policymakers with a strategic choice of whether to attempt to maintain sufficient access to space in periods of crisis and war to enable the military to accomplish its objectives (and U.S. commerce to be sustained at acceptable levels) or to seek alternative means and methods. The U.S. military needs to explore what concepts of operation might enable it to preserve access and freedom of action in this increasingly important domain. Along these lines, given advances in terrestrial-based autonomous systems, options for pulling much of this capability back into the atmosphere where it may be both less vulnerable and less expensive ought to be thoroughly examined and evaluated. Operational concepts whose purpose is to deny the enemy access to space, and to defeat their ASAT capabilities, should also be accorded emphasis.

### **Investment Priorities**

Preliminary analysis of the challenge posed by revisionist power A2/AD capabilities, associated military trends in strategic and advanced irregular warfare, and the growing challenge to the global commons suggest the following areas as promising for increased investment and development.

### Power Projection in an A2/AD Environment

**Increased ISR and Strike Range.** Increasing the range of U.S. ISR and strike systems increases the number of bases available for their use while compelling the enemy to pay a much greater price to scout and attack them. The U.S. military's force structure and current investment profile are unbalanced in favor of short- versus long-range systems. The growing anti-access/area-denial threat only accentuates the problem.

This imbalance must be corrected, and greater priority placed on long-range ISR and strike systems capable of surviving and operating effectively in contested environments. On a positive note, the U.S. Air Force is developing the long-range B-21 bomber to succeed the aging B-52, B-1, and B-2 fleets. The U.S. Navy, however, lacks a long-range stealthy ISR and strike aircraft for its carriers and over the next decade or so will lose its four guided-missile submarine (SSGN) boats to retirement.

<sup>231</sup> For a general discussion of commerce raiding and commerce defense in an A2/AD maritime environment, to include aspects of blockade and counter-blockade, see Krepinevich, *Maritime Competition in a Mature Precision-Strike Regime*, pp. 95–105. See also Krepinevich, "The Terrorist Threat Beneath the Waves." With respect to the cyber dimension of the competition, see Krepinevich, *Cyber Warfare*, pp. 39–59, 63–77. The reader should note that analyses pertaining to cyber warfare are particularly challenging, as much of the relevant data and information needed to support it is classified and the character of the competition is changing so rapidly.

**Prompt Conventional Long-Range Strike.** Consideration should be given to sea basing of medium- and intermediate-range ballistic and cruise missiles. At present, the United States finds itself on the wrong end of a one-sided competition with the three revisionist powers who are fielding cruise and ballistic missiles in the 500–5,000 km range that are prohibited to the United States under the INF Treaty signed with the Soviet Union in 1987. These restrictions do not, however, apply to sea-based systems. Moreover, given Russian violations of the treaty, serious consideration should be given as to whether it is in the interest of the United States to remain the sole power continuing to abide by its provisions.

Air and Missile Defenses. In contingencies involving nuclear use or the threat of use by minor nuclear powers, strike operations against enemy nuclear storage sites and delivery systems may prove effective. Yet they may not be entirely successful. American policymakers must anticipate that an enemy may launch aircraft and (ballistic and cruise) missiles armed with nuclear warheads outside its borders, to attack U.S. military forces, allies and partners, or perhaps even the United States itself. In the case of high-end A2/AD threats, potential adversaries are likely to exploit precision-guided weapons to increase greatly the damage they can inflict at extended ranges. The value of kinetic and, over time, directed energy air and missile defense systems may increase substantially under such conditions.

*Undersea Systems*. Given the growing vulnerability of surface combatants, greater emphasis should be given to undersea warfare capabilities in the U.S. Navy's shipbuilding program. Design work should begin for a follow-on to the Virginia Class attack submarine, with a significantly larger payload. The potential value of deploying submarines with towed payload modules should be vigorously explored as a means of increasing their offensive punch and expanding their ability to deploy mines and unmanned undersea vehicles (UUV). In designing the follow-on to the *Ohio*-class fleet ballistic missile submarines (SSBN), strong consideration should also be given to designing an SSGN variant, capitalizing on a common hull form, to replace the four existing boats as they reach the end of their service lives.

Forcible Entry. The U.S. military is at a crossroads with respect to its ability to conduct forcible entry operations successfully in a contested (A2/AD) environment. Any effort to assess the U.S. military's ability to create counter-A2/AD defensive concepts and operational concepts to defeat enemy A2/AD forces should address the extent to which this will require U.S. and allied forces to conduct forcible entry operations, and whether ways can be found to do so successfully at an acceptable cost in lives and materiel. One growing problem that must be surmounted with regard to forcible entry operations concerns the proliferation of increasingly sophisticated anti-ship mines and the U.S. military's lack of capability to address this problem effectively. The counter-mine warfare challenge is likely to be further compounded by the proliferation of long-range torpedoes, smart mobile mines, and unmanned underwater combat vehicles operating in combination with each other.

### The Battle Network in an A2/AD Environment

**Counter-Network Capabilities.** These capabilities are particularly important to ensure the U.S. military's freedom of action. They do so by disrupting, deceiving, or destroying elements of an enemy's battle network. Some counter-network capabilities such as cyber weapons, anti-satellite weapons, directed energy systems, and high-powered land-based jammers do not require executing kinetic strikes on enemy systems. This may provide commanders with useful options.

**Network Independent Forces.** One way to counter efforts to take down U.S. battle networks is to decrease the U.S. military's dependence on them. Over this strategy's planning horizon, advances in artificial intelligence, nanotechnology, and robotics may enable a range of missions to be executed autonomously and at acceptable levels of effectiveness even when units or systems have lost access to the battle network. If so, it could enable the U.S. military to create command and control structures that degrade gracefully even in the face of highly capable and robust enemy A2/AD forces. Toward this end, training should also emphasize relying on commander's intent and mission-type orders.

Space: Greater Emphasis on Commercial and International Partners. The threat to the U.S. space architecture's capabilities for precision navigation and timing; communications; command and control; meteorology; and intelligence, surveillance, and reconnaissance is growing. Rivals are increasingly capable of employing cyber attacks; attacks on ground stations; jamming; directed energy strikes; as well as direct ascent and co-orbital anti-satellite weapons. The problem is accentuated by the U.S. military's tendency to place many of its eggs in ever fewer baskets—launching smaller numbers of exquisite space systems. One option worth exploring involves relying more heavily on commercial and international partners and long-term leases for unprotected long-haul satellite communications, low-end electro-optical imagery, and weather.<sup>232</sup> The U.S. military and intelligence communities would then shift funding toward unique high-end capabilities for protected broadband communications, next generation precision navigation and timing, missile warning, nuclear command and control, and survivable ISR systems. In some cases, these capabilities may no longer need to be spacebased. For example, the United States may choose to pursue buried fiber optic cables coupled with radiofrequency (RF) gateways—particularly along the FIC and in Eastern Europe—longendurance airships for communications relays, long-range stealthy UAVs for ISR, and inertial navigations systems (INS) for next-generation navigation.

#### Infrastructure in an A2/AD Environment

**Proliferated Basing.** Point-of-departure operational concepts for projecting power, as well as maintaining forward defenses, indicate that if adversary's "scouting" ability can be reduced

<sup>232</sup> For an overview of the challenges to the U.S. space architecture and the potential for relying on commercial and international partners, see Todd Harrison, *The Future of MILSATCOM* (Washington, DC: Center for Strategic and Budgetary Assessments, 2013).

through counter-network operations, U.S. forces might exploit the situation and further complicate the enemy's scouting problems by proliferating the number of air and naval bases from which U.S. and allied forces can operate. For example, by expanding beyond its two main Western Pacific basing hubs (Anderson and Kadena) and developing minor sovereign bases (in locations like Tinian, Palau, and Saipan), American and allied forces can present the enemy with a "shell game" problem whereby it must scout a large number of bases to determine where U.S. forces are concentrated at any given point in time.<sup>233</sup> A key issue here, however, centers on the substantial costs the United States and its allies would likely incur in establishing and sustaining this kind of distributed basing structure.<sup>234</sup>

**Rapid Base Development.** One way of proliferating the number of bases is to create a capability to develop bases rapidly, similar to the Navy's Construction Battalions (CBs or "Sea Bees") in World War II. This capability would be especially valuable once an enemy's extended-range scouting ability has been neutralized.

**Base Hardening.** Key bases can be hardened to raise the costs of enemy missile attacks. Hardening should be considered for key air bases and naval facilities—such as submarine pens. Hardening provides a means for driving up enemy costs, particularly if the enemy must expend long-range munitions to defeat hardened or deeply buried targets.

**Preferential Missile/Air Base Defense.** The enemy's targeting problems can be further complicated by deploying land- and sea-based air and missile defenses, to include both traditional (i.e., kinetic interceptors) and (over time) directed energy weapons. With respect to the latter, recent rapid advances in solid-state laser technology, combined with improvements in beam coherency, could enable these systems to mount effective defenses against aircraft-delivered precision-guided gravity bombs and various types of cruise missiles.

**Mobile/Sea Basing.** America's maritime superiority and ability to maneuver from mobile bases at sea has been a source of enduring advantage. To the extent that the U.S. military (and those of its allies) can reposition some of its shore-based capabilities—such as command and control, ISR, and logistics support—to mobile platforms at sea, it can further complicate the enemy's targeting problem while enhancing crisis stability and U.S. combat effectiveness. Sea basing can add flexibility and expanded options for access and power projection, capitalizing on the ability to initiate and sustain operations from international waters, thereby circumventing sovereign access concerns. This advantage, however, would likely be realized only after the enemy's ISR ("scouting") capability has been significantly degraded.

<sup>233</sup> See van Tol et al.,  $AirSea\ Battle,$  pp. 53–58.

<sup>234</sup> The defense program that emerges from the strategy invests significant funding toward the initial stages of a distributed basing system in the WPTO.

### Logistics

Forward Equipment and Munitions Stocks. The strategy calls both for increasing forward-deployed forces and maintaining expeditionary forces capable of reinforcing the WPTO, and also the ETO. One reason for adopting a forward-deployed posture in the WPTO is the anticipated difficulty involved in deploying forces during the initial stages of a war in the face of China's A2/AD capabilities. Thus, it becomes imperative to position logistics stocks forward in configurations—such as in hardened and dispersed facilities—that preclude those stocks being easily destroyed. Similarly positioned supplies as well as prepositioned equipment sets are also needed for U.S. expeditionary forces earmarked for rapid deployment to the ETO.

Underway Replenishment. Since World War II operations in the Pacific Ocean, a major, traditional source of the U.S. Navy's competitive advantage has been its ability to replenish warships on station without their having to return to port. This advantage eroded over time. The damage is compounded, as U.S. warships with vertical launch system (VLS) tubes must return to port to reload—even as forward naval bases are at ever-greater risk of destruction from enemy air and missile attacks. Greater priority must be given to augmenting the Navy's ability to conduct large-scale underway replenishment operations in an A2/AD environment, to include rearming its warships at sea.

*Munitions.* It seems almost certain that any set of operational concepts designed to offset the challenges posed by any of the revisionist powers in a major war would require large numbers of PGMs. Consequently, a shortfall of these munitions would likely render even the most attractive operational concepts unexecutable. The U.S. military is woefully short of the PGM stocks that would almost certainly be needed in a conflict with China or Russia that extended for more than a few weeks. This includes PGM inventories for offensive strike operations as well as those needed for air and missile defense. These shortfalls could place the United States in a position of having to choose between unwanted escalation to strategic warfare or suffering a series of reverses to the point of defeat.<sup>235</sup>

#### **Nuclear-Related Capabilities**

Capable Nuclear Forces. Depending upon the form a campaign against a nuclear-armed state or entity takes—such as whether an imminent use of nuclear weapons exists; use has occurred; or further use is anticipated—the U.S. military may be called upon to employ nuclear weapons as the best means of ending the conflict as quickly as possible on terms acceptable to the United States. As recommended above, a set of contingencies should be developed reflecting the changing character of strategic warfare. They should be employed to assess whether the current nuclear posture—in terms of forces, systems characteristics,

<sup>235</sup> Marcus Weisgerber, "The U.S. is Raiding its Global Bomb Stockpiles to Fight ISIS," Defense One, May 26, 2016, available at http://www.defenseone.com/threats/2016/05/us-raiding-its-global-bomb-stockpiles-fight-isis/128646/. For a discussion of how the U.S. military might best increase its PGM inventory, see Mark Gunzinger and Bryan Clark, Sustaining America's Precision Strike Advantage (Washington, DC: Center for Strategic and Budgetary Assessments, 2015).

training, and weapons—is adequate for the task of addressing them, both today and over this paper's planning horizon.<sup>236</sup>

**Forensics.** In an increasingly multipolar nuclear competition, the ability to attribute the source of a nuclear attack, credibly and effectively, could greatly enhance deterrence. In the absence of a rapid and accurate forensic capability, the United States may be unable to identify an aggressor with sufficient confidence to take prompt actions to neutralize the threat of further attacks and retaliate. Lacking this capability risks eroding the effectiveness of deterrence against direct attacks on the United States, as well the confidence of allies and partners in U.S. extended deterrence.

**Radiological Detection.** The ability to detect covert efforts to introduce nuclear weapons into the United States, major U.S. military overseas bases, or the territory of key allies and partners suggests a higher priority should be given to developing and enhancing the ability to detect radiological signatures over a wide area. Given the limited detection range of these signatures and the potential for shielding them, U.S. operations to detect the movement of nuclear and other radiological weapons (such as "dirty bombs")<sup>237</sup> may be limited to monitoring key choke points or focusing on developing cheap sensors that can be seeded to provide wide-area surveillance.

**Securing Nuclear Weapons.** It may be necessary, particularly in the case of a failed state or collapsing enemy state, to seize an enemy's nuclear weapons directly, as opposed to relying on interdiction, strike, or active defense operations. In such instances, a sizeable raiding force capability may be needed to seize the weapons and destroy extended-range nuclear delivery systems. To preclude the weapons from being moved, or from being salvage detonated, such a raiding force would likely need to achieve surprise, suggesting the need for a stealthy deployment capability.

Consequence Management. Despite their best efforts, the United States and its allies cannot discount the prospect that a nuclear weapon, or weapons, will be detonated on friendly soil. Under these circumstances, the U.S. military is likely to play a major role in the recovery process, especially in its early stages. Forces assigned to this mission should have tailored capabilities including airlift, medical, mitigation, and engineering elements. Should such a contingency arise, these forces should be drawn from the U.S. military's National Guard and Reserve components to the maximum extent possible so as to maintain the readiness of U.S. expeditionary forces.

<sup>236</sup> Until U.S. strategists develop an understanding of the new escalation ladders the United States should avoid adopting a "no first use" policy, which would limit its options in future conflicts should escalation control be challenged.

<sup>237</sup> A dirty bomb (also known as a radiological dispersal device) combines radioactive material and conventional explosives.
The bomb's purpose is to dispense its radiological materials over an area, thereby contaminating it.

### Research and Development

Given the open-ended character of the competition and the ongoing rapid advances in military-related technology, the strategy accords increased priority to research and development. The objective here is to ensure the U.S. military will have the means necessary to be successful in key areas of the military competition over the long term.

### The Principal "Billpayers"

Detailed force structure, force posture, and programmatic recommendations to enhance the U.S. Eurasia defense posture are beyond the scope of this paper. That said, based on the preceding analysis, the following capability tradeoffs appear warranted, with the understanding that there is inherent risk in any action that reduces capability in one area to augment it in another. The reader should note that the strategy does *not* assume any significant savings arising from Defense Department "efficiency initiatives."

**Short-Range**, **Non-Stealthy Combat and ISR Aviation**. Given the growing risk to forward-based short-range strike and ISR aircraft, it seems appropriate to take risk in the U.S. military's legacy fighter inventory and force structure, as well as in its fighter modernization programs, in part to provide a better balance between short-/long-range; manned/unmanned; and stealthy/non-stealthy ISR and strike systems.

**Surface Combatants.** Some surface warships designed to address the full range of contingencies appear to be overdesigned for threats at the low end of the spectrum while being relatively vulnerable to robust A2/AD threats. Investment in these kinds of combatants needs to be trimmed to create a more balanced maritime force capable of operating effectively against the high-end threat, particularly in the WPTO and the Baltic and Black Seas.

The Army's Force Structure. The Army needs to maintain a larger force structure than is currently called for in current defense plans, and the excursion budget strategy accounts for this. The Army, however, needs to restructure itself to emphasize the kinds of units that can most effectively support the strategy outlined above. This means a relatively higher percentage of forces capable of engaging in cross-domain operations, and developing new brigade formations optimized for combat against the kind of threat posed by Russia in Eastern Europe and, to a far lesser extent, by North Korea and irregular forces like Hezbollah in the Middle East. The principal "billpayer" for this effort is found in the realignment of ground forces. On the Korean Peninsula, for example, South Korea has twice the population of the North and over ten times its GDP. Over time it should be possible for Seoul to assume a greater share of the alliance's ground force requirements, freeing up some U.S. ground forces for other priority missions.

*Missile Defenses.* Even if they are effective, the U.S. military cannot afford to employ kinetic interceptors that cost multiples more than the projectiles they are defeating. This argues for a broad approach to dealing with the missile defense problem within an overall

concept of operations at the level of a military campaign. Recent dramatic improvements in solid-state laser and rail gun technology may offer the potential to conduct intercepts at dramatically lower cost than with traditional, kinetic-based systems. There are also new operational concepts that offer the promise of mounting a cost-effective kinetic defense by emphasizing larger numbers of less expensive, short-range interceptors while reducing the number of long-range interceptors. Moreover, a combination of kinetic and non-kinetic systems combined with suppression attacks against enemy strike forces, base hardening and dispersion, and degrading enemy battle damage assessment capabilities has the potential to greatly complicate the revisionist powers' targeting of U.S. forward bases and major surface combatants.<sup>238</sup>

Time-Based Competition. By setting and locking in realistic requirements, the U.S. acquisition system can field equipment more rapidly and efficiently. The ability to field new capabilities quickly should cut costs for the U.S. military, in part by reducing the practice of relying on immature technologies that lead to cost overruns and production delays. The ability to compete effectively based on time will also impose costs on rivals since the uncertainty created by a fast timeline forces them to prepare for a wider range of possible U.S. military capabilities. Competitors must either spread their resources more thinly, reducing the threat they pose, or increase their spending to counter capabilities that the U.S. military may never end up acquiring. As noted earlier in this paper, the Pentagon is enjoying some modest success in this area in the form of efforts oriented on bypassing the dysfunctional acquisition system in order to procure new equipment and upgrade old equipment quickly. Again, however, a comprehensive solution requires fundamentally reforming the acquisition system itself.

*Risk*. Given current trends, to include assumptions regarding U.S. defense budgets and ally contributions, or lack thereof, the strategy also anticipates taking on a higher level of risk over time as the overall level of U.S. effort increases but resources fail to keep pace. At some point, however, the gap between U.S. commitments and its resources could find the U.S. military unable to execute the strategy. At this point, some commitments will have to be abandoned so that others might be maintained. As Frederick the Great observed, he who attempts to defend everything, in the end, defends nothing.

The reader will also recall that executing the strategy at an acceptable level of risk will require some increases in funding over what are currently allocated by "sequestration" (Budget Control Act). The greater level of effort cannot be adequately covered by the "capability slack" created by the withdrawal of large combat forces from Iraq over the past eight years, nor by the major reduction in forces in Afghanistan, especially as both the base budget and Overseas Contingency Operations (OCO) funding and Army force structure have been cut substantially,

<sup>238</sup> For a discussion of non-kinetic air and missile defenses, see Mark Gunzinger, Changing the Game: The Promise of Directed-Energy Weapons (Washington, DC: Center for Strategic and Budgetary Assessments, 2012). The concept of relying more heavily on short-range interceptors is addressed in Bryan Clark, Commanding the Seas: A Plan to Reinvigorate U.S. Surface Warfare (Washington, DC: Center for Strategic and Budgetary Assessments, 2014), pp. 17–24.

with further cuts anticipated. Some reallocation of resources will be necessary as well, while allies and partners will need to provide a significant level of support, especially in the WPTO.

Should divestment of commitments become necessary, risk will be assumed in inverse priority, with the Middle East being the principal "billpayer," followed by Europe. The alternative is to pursue a "strategy" based on bluff, as the gap between U.S. security ends and the means available to achieve them widens to the point where rivals are no longer deterred, nor friends reassured.

### **Summary**

The defense strategy presented here:

- Addresses an enduring strategic interest of the United States.
- Provides an accurate assessment of the strategic environment, to include key challenges
  and opportunities confronting the United States along the Eurasian periphery, as well
  as U.S. strengths and weaknesses relative to the principal revisionist powers in what is
  likely to be a long-term competition.
- Explicitly addresses the relationship between ends and means, in particular, the growing gap between the challenge to traditional U.S. security interests along the Eurasian periphery and the resources likely to be made available to preserve them. Toward this end, it emphasizes the link between restoring U.S. fiscal health and its ability to provide the resources necessary for national defense over the long term.
- Provides a strategy designed to minimize the overall risk to U.S. interests. In so doing it allocates risk among the three theaters of operation, with the Western Pacific Theater being accorded top priority, followed by the European Theater and, finally, the Middle East Theater. The strategy shifts some of the burden for security common security interests to allies and partners. Moreover, the strategy explicitly prioritizes those theaters where U.S. interests will have to be divested if the resources required to execute the strategy are not made available. The strategy views this as superior to pursuing a strategy based on bluff.
- Adopts a forward defense posture along the first and second island chains in the Western
  Pacific; a significant support and presence posture in Eastern Europe backed by rapid
  reinforcement expeditionary forces; and an advise and assist posture in the Middle East,
  also backed by rapid reinforcement expeditionary forces.
- Is supported by a force posture that is sufficiently flexible so that a significant part of the force (such as the expeditionary forces, counter-offensive forces; portions of a theater's operational reserve; and the strategic reserve) is available to address unanticipated threats to (or opportunities to advance) U.S. interests in any of the three theaters.

- Takes a broad view of strategic strike operations. In addition to nuclear forces, it also
  takes into account prompt conventional precision strike forces; cyber payloads; and
  advanced air and missile defenses. It emphasizes the need to rethink the escalation
  ladder to include not only these capabilities but also advanced design nuclear weapons as
  well as how the revisionist powers view strategic strike operations.
- Places heavy emphasis on the social dimension of strategy. Specifically, it accords high
  priority to developing several strategic narratives to be put forth by the nation's political
  leadership that explain to the American people the need to return to the path of fiscal
  prudence and to provide the resources needed to execute the defense strategy at an
  acceptable level of risk.
- Calls for the United States to develop a core competency in time-based competition, specifically in fielding new equipment more rapidly than its rivals. This can aid the U.S. military in hedging against an uncertain world, reducing costs, and also complicating its rival's planning. It also provides for a program of vigorous experimentation to identify how best to exploit existing and emerging technologies—such as artificial intelligence, advances in the biosciences, big data, directed energy, nanotechnology, and robotics, among others—within the context of new operational concepts that enable major boosts in U.S. military effectiveness.
- Accounts for the possibility that shifts may occur in the relative priority accorded to
  the three theaters of operation. Specifically, it addresses the WPTO (and possibly the
  METO) becoming a relatively greater focus of U.S. efforts while the ETO diminishes
  in importance.

### APPENDIX A

## **Eurasia Strategy Defense Force Structure and Program**

Translating the strategy presented above into a detailed defense program requires a level of detailed analysis that is far beyond the scope of this paper. That said, it is possible to provide the general contours of such a program—an 80 percent solution, if you will. The defense program outlined below assumes funding levels over the next 10 years, or two FYDPs (Future Years Defense Plan), as stated in the Obama administration's FY 2017 defense plan. This plan provides funding estimated at 2.75 percent of the projected U.S. GDP over the current FYDP, from FY 2018 through FY 2022, and at 2.44 percent of the projected GDP over the following FYDP, from FY 2023–FY 2027. The percentage of GDP allocated to defense over the 10-year period is 2.57 percent, roughly equal to CBO's estimate for the mid-2020s timeframe.¹

The costs of various program options were drawn from CSBA's Strategic Choices Tool.<sup>2</sup> A detailed list of programmatic "puts and cuts" and the resultant force structure can be found in Appendices D and E (for the President's FY 2017 budget) and Appendices F and G (the "Middle Way" excursion between the President's FY 2017 budget and the so-called Gates Budget projections presented for FY 2012). As one would expect, they conform to the priorities outlined in the strategy, to include the force posture, point-of-departure operational concepts, and related infrastructure, creating options in an uncertain environment, and generating new sources of competitive advantage.

An excursion on the 10-year defense program is provided in Appendices E and F. It assumes a funding level halfway between the administration's current projected funding levels and the so-called "Gates Budget"—the defense funding levels proposed by Defense Secretary Robert Gates in his FY 2012 budget. Funding at this level was advocated by the 2014 National Defense Panel. See William J. Perry and John P. Abizaid, co-chairs, *Ensuring a Strong U.S. Defense for the Future*, National Defense Panel Review of the 2014 Quadrennial Defense Review (Washington, DC: U.S. Institute of Peace, July 31, 2014). The funding levels in this option are estimated at 3.1 percent of GDP across the current FYDP and 2.85 percent across the following FYDP (assuming a linear growth rate from where the original FY 2012 proposal terminates). This produces and estimated 10-year defense budget funding at roughly 2.88 percent of U.S. GDP.

<sup>2</sup> For a description of CSBA's Strategic Choices Tool, see Appendix B.

### APPENDIX B

## **CSBA's Strategic Choices Tool**

The United States faces an evolving set of security challenges including the spread of advanced conventional weapons, the proliferation of nuclear technologies, the resurgence of great power competitions, and the enduring threat from terrorist groups. Meeting these challenges will require U.S. defense leaders to prioritize resources and investments.

CSBA's Strategic Choices Tool is designed to illuminate these challenges and foster better understanding of the linkages between the U.S. defense budget and force structure. It accomplishes this by asking users to conduct long-term defense planning, develop new operational concepts, assess alternative force structures and postures, identify areas for greater investment or divestment, and evaluate the division of labor between the United States and its allies.

In real terms, defense spending in the FY 2017 FYDP is 12 percent lower than in the FY 2012 FYDP, the last pre-BCA budget request. These two trends place a premium on understanding key linkages between national strategy, military capabilities, and available resources for policymakers, analysts, and industry.

The Strategic Choices Tool allows users to explore alternative defense investment priorities and develop strategies for future plans and programs, highlighting how future plans should differ from current plans. Driven by the user's view of threats to national security and the best strategy for addressing them, users rebalance defense force structure and investments over two 5-year moves that correspond to consecutive FYDPs. The U.S. tool includes over 1,200 force structure and capability options across twelve areas, including air, sea, ground, manpower, readiness, and R&D.

## APPENDIX C

## Rebalanced President's FY 2017 Defense Funding Levels

## **Force Structure**

Option Category	Force Structure Category	Baseline	PB 2017	Deviation
Air	Aerial Refueling	567	567	0
Air	Airlift	673	673	0
Air	Bombers (non-stealthy)	120	120	0
Air	Bombers (stealthy)	38	38	0
Air	Fighter / Attack (non-stealthy)	1,804	1,804	0
Air	Fighter / Attack (stealthy)	1,181	861	-320
Air	Manned ISR / ASW / C2	413	381	-32
Air	Unmanned ISR / Strike (non-stealthy)	478	463	-15
Air	Unmanned ISR / Strike (stealthy)	0	130	130
Ground	Armored BCTs (Active)	9	9	0
Ground	Armored BCTs (Guard / Reserve)	6	5	-1
Ground	Combat Aviation Brigade (Active)	11	11	0
Ground	Expeditionary Combat Aviation Brigade (R/C)	8	6	-2
Ground	Infantry BCTs (Active)	14	13	-1
Ground	Infantry BCTs (Guard / Reserve)	19	18	-1
Ground	Long-Range Fires Battalions (Active)	0	1	1
Ground	Short-Range Fires Brigade (Active)	12	12	0
Ground	Short-Range Fires Brigade (Guard/Reserve)	8	7	-1
Ground	Stryker BCTs (Active)	7	6	-1
Ground	Stryker BCTs (Guard / Reserve)	1	0	-1
Ground	USMC Amphibian Battalion (Active)	3	3	0
Ground	USMC Amphibian Battalion (Reserve)	1	1	0
Ground	USMC Artillery Battalion (Active)	8	8	0
Ground	USMC Artillery Battalion (Reserve)	3	3	0
Ground	USMC Aviation Group (Reserve)	2	2	0
Ground	USMC Chem/Bio Response Force (A/C)	1	1	0
Ground	USMC Civil Affairs Group (R/C)	4	4	0
Ground	USMC Infantry Battalion (Active)	24	21	-3
Ground	USMC Infantry Battalion (Reserve)	8	8	0
Ground	USMC LAR Battalion (Active)	3	2	-1
Ground	USMC LAR Battalion (Reserve)	1	1	0
Ground	USMC Tank Battalion (Active)	2	1	-1
Ground	USMC Tank Battalion (Reserve)	1	1	0

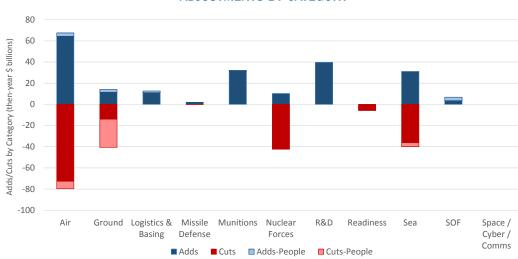
Munitions	Direct Attack	0	0	0
Munitions	unitions Short-Range Stand-Off		2,600	2,600
Munitions Survivable Long-Range Stand-Off		0	400	400
Nuclear Forces	Ballistic Missile Subs	13	13	0
Personnel	Air Force Active End Strength	311,200	307,500	-3,700
Personnel	Air Force Civilians	170,000	165,000	-5,000
Personnel	Air Force Guard/Reserve End Strength	170,600	170,600	0
Personnel	Army Active End Strength	450,000	443,900	-6,100
Personnel	Army Civilians	205,000	199,000	-6,000
Personnel	Army Guard / Reserve End Strength	530,000	507,800	-22,200
Personnel	Marine Corps Active End Strength	182,000	173,100	-8,900
Personnel	Marine Corps Civilians	22,000	17,500	-4,500
Personnel	Marine Corps Reserve End Strength	38,500	38,500	0
Personnel	Navy Active End Strength	330,000	321,600	-8,400
Personnel	Navy Civilians	179,000	173,300	-5,700
Personnel	Navy Reserve End Strength	58,900	58,900	0
Personnel	OSD and Defense Agency Civilians	198,000	198,000	0
Sea	Aircraft Carriers	11	9	-2
Sea	Amphibious Ships	37	35	-2
Sea	Attack Subs	45	48	3
Sea	Combat Logistics Force	29	31	2
Sea	Cruise Missile Subs	2	2	0
Sea	Large Surface Combatants	97	95	-2
Sea	Small Surface Combatants	46	33	-13
Sea	Support Vessels	36	38	2
Space / Cyber / Comms	Cyber Teams	133	133	0
Space / Cyber / Comms	GPS (Hosted)	0	0	0
Space / Cyber / Comms	GPS (MEO)	31	31	0
Space / Cyber / Comms	Missile Warning (GEO/HEO)	8	8	0
Space / Cyber / Comms	Missile Warning (Hosted)	0	0	0
Space / Cyber / Comms	Narrowband SATCOM (Commercial)	0	0	0
Space / Cyber / Comms	Narrowband SATCOM (Military)	5	5	0
Space / Cyber / Comms	Protected SATCOM (Strategic)	6	6	0
Space / Cyber / Comms	Protected SATCOM (Tactical)	0	0	0
Space / Cyber / Comms	Wideband SATCOM (Commercial)	0	0	0
Space / Cyber / Comms	Wideband SATCOM (Military)	10	10	0

## APPENDIX D

## Rebalanced President's FY 2017 Defense Funding Levels

### **Defense Priorities**





### ADJUSTMENTS BY CATEGORY (THEN-YEAR \$ BILLIONS)

Category	Air	Ground	Logistics & Basing	Missile Defense	Munitions	Nuclear Forces	R&D	Readiness	Sea	SOF	Space / Cyber / Comms
Adds	64.4	11.5	11.0	1.8	31.4	10.2	39.7	0.0	30.4	3.5	0.0
Adds- People	3.2	2.6	1.7	0.2	0.8	0.0	0.0	0.0	0.7	3.3	0.0
Cuts	-72.6	-14.0	0.0	0.0	0.0	-42.4	0.0	-5.9	-36.1	0.0	0.0
Cuts- People	-7.2	-26.7	0.0	-0.03	0.0	0.0	0.0	0.0	-3.7	0.0	0.0

#### **NET PERSONNEL CHANGE**

	USAF Active	USAF Guard/ Reserve	USA Active	USA Guard/ Reserve	USN Active	USN Guard/ Reserve	USMC Active	USMC Guard/ Reserve
FYDP 1	1,200	0	-10,800	-18,700	-4,300	0	-8,300	0
FYDP 2	-4,900	0	4,700	-3,500	-4,100	0	-600	0
End Strength	307,500	170,600	443,900	507,800	321,600	58,900	173,100	38,500

## **APPENDIX E**

# **Defense Excursion Defense Funding Levels**

## **Force Structure**

Option Category	Force Structure Category	Baseline	Excursion	Deviation
Air	Aerial Refueling	567	567	0
Air	Airlift	673	637	-36
Air	Bombers (non-stealthy)	120	120	0
Air	Bombers (stealthy)	38	38	0
Air	Fighter / Attack (non-stealthy)	1,804	1,884	80
Air	Fighter / Attack (stealthy)	1,181	1,061	-120
Air	Manned ISR / ASW / C2	413	381	-32
Air	Unmanned ISR / Strike (non-stealthy)	478	543	65
Air	Unmanned ISR / Strike (stealthy)	0	205	205
Ground	Armored BCTs (Active)	9	15	6
Ground	Armored BCTs (Guard / Reserve)	6	4	-2
Ground	Combat Aviation Brigade (Active)	11	12	1
Ground	Expeditionary Combat Aviation Brigade (R/C)	8	6	-2
Ground	Infantry BCTs (Active)	14	12	-2
Ground	Infantry BCTs (Guard / Reserve)	19	18	-1
Ground	Long-Range Fires Battalions (Active)	0	21	21
Ground	Short-Range Fires Brigade (Active)	12	13	1
Ground	Short-Range Fires Brigade (Guard/Reserve)	8	7	-1
Ground	Stryker BCTs (Active)	7	5	-2
Ground	Stryker BCTs (Guard / Reserve)	1	0	-1
Ground	USMC Amphibian Battalion (Active)	3	3	0
Ground	USMC Amphibian Battalion (Reserve)	1	1	0
Ground	USMC Artillery Battalion (Active)	8	8	0
Ground	USMC Artillery Battalion (Reserve)	3	4	1
Ground	USMC Aviation Group (Reserve)	2	2	0
Ground	USMC Chem/Bio Response Force (A/C)	1	1	0
Ground	USMC Civil Affairs Group (R/C)	4	4	0
Ground	USMC Infantry Battalion (Active)	24	21	-3
Ground	USMC Infantry Battalion (Reserve)	8	9	1
Ground	USMC LAR Battalion (Active)	3	2	-1
Ground	USMC LAR Battalion (Reserve)	1	1	0
Ground	USMC Tank Battalion (Active)	2	1	-1
Ground	USMC Tank Battalion (Reserve)	1	1	0

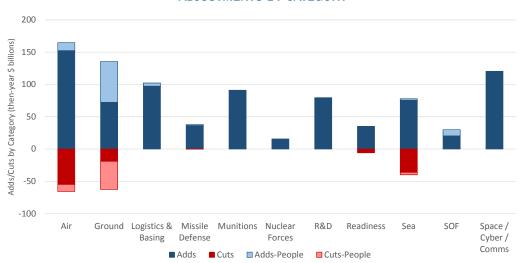
Munitions         Short-Range Stand-Off         0         4,600         4,600           Munitions         Survivable Long-Range Stand-Off         0         400         400           Nuclear Forces         Ballistic Missile Subs         13         13         13         0           Personnel         Air Force Active End Strength         311,200         321,600         10,400           Personnel         Air Force Civilians         170,000         159,000         -11,000           Personnel         Air Force Guard/Reserve End Strength         170,600         167,100         -3,500           Personnel         Army Active End Strength         450,000         516,300         66,300           Personnel         Army Civilians         205,000         191,000         -14,000           Personnel         Marine Corps Active End Strength         530,000         503,500         -26,500           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Civilians         179,0	Munitions	Direct Attack	0	0	0
Nuclear Forces         Ballistic Missile Subs         13         13         0           Personnel         Air Force Active End Strength         311,200         321,600         10,400           Personnel         Air Force Civilians         170,000         159,000         -11,000           Personnel         Air Force Guard/Reserve End Strength         170,600         167,100         -3,500           Personnel         Army Active End Strength         450,000         516,300         66,300           Personnel         Army Guard / Reserve End Strength         530,000         503,500         -26,500           Personnel         Marine Corps Active End Strength         182,000         173,700         -8,300           Personnel         Marine Corps Civilians         22,000         16,500         -5,500           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Navy Active End Strength         38,000         31,00         -10,000           Personnel         Navy Civillans         179,000         167,300         -11,700           Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11 </td <td>Munitions</td> <td>Short-Range Stand-Off</td> <td>0</td> <td>4,600</td> <td>4,600</td>	Munitions	Short-Range Stand-Off	0	4,600	4,600
Personnel         Air Force Active End Strength         311,200         321,600         10,400           Personnel         Air Force Civilians         170,000         159,000         -11,000           Personnel         Air Force Guard/Reserve End Strength         170,600         167,100         -3,500           Personnel         Army Active End Strength         450,000         516,300         66,300           Personnel         Army Guard / Reserve End Strength         530,000         503,500         -26,500           Personnel         Marine Corps Active End Strength         182,000         173,700         -8,300           Personnel         Marine Corps Active End Strength         182,000         173,700         -8,300           Personnel         Marine Corps Reserve End Strength         38,500         43,100         -6,600           Personnel         Marine Corps Reserve End Strength         330,000         326,900         -3,100           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Seserve End Strength         330,000         326,900         -3,100           Personnel         Navy Seserve End Strength         330,000         326,900         -1,100           Personnel	Munitions	Survivable Long-Range Stand-Off	0	400	400
Personnel         Air Force Civilians         170,000         159,000         -11,000           Personnel         Air Force Guard/Reserve End Strength         170,600         167,100         -3,500           Personnel         Army Active End Strength         450,000         516,300         66,300           Personnel         Army Civilians         205,000         191,000         -14,000           Personnel         Army Guard / Reserve End Strength         530,000         503,500         -26,500           Personnel         Marine Corps Active End Strength         182,000         173,700         -8,300           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Civilians         179,000         167,300         -11,700           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         Navy Reserve End Strength <t< td=""><td>Nuclear Forces</td><td>Ballistic Missile Subs</td><td>13</td><td>13</td><td>0</td></t<>	Nuclear Forces	Ballistic Missile Subs	13	13	0
Personnel         Air Force Guard/Reserve End Strength         170,600         167,100         -3,500           Personnel         Army Active End Strength         450,000         516,300         66,300           Personnel         Army Civilians         205,000         191,000         -14,000           Personnel         Army Guard / Reserve End Strength         530,000         503,500         -26,500           Personnel         Marine Corps Active End Strength         182,000         173,700         -8,300           Personnel         Marine Corps Civilians         22,000         16,500         -5,500           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Civilians         179,000         167,300         -11,700           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         OSD and Defense Agency Civilians	Personnel	Air Force Active End Strength	311,200	321,600	10,400
Personnel         Army Active End Strength         450,000         516,300         66,300           Personnel         Army Civilians         205,000         191,000         -14,000           Personnel         Army Guard / Reserve End Strength         530,000         503,500         -26,500           Personnel         Marine Corps Active End Strength         182,000         173,700         -8,300           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Marine Corps Reserve End Strength         330,000         326,900         -3,100           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Active End Strength         58,900         57,400         -15,00           Personnel         Navy Reserve End Strength         58,900         57,400         -15,00           Personnel         OSD and Defense Agency Civilians </td <td>Personnel</td> <td>Air Force Civilians</td> <td>170,000</td> <td>159,000</td> <td>-11,000</td>	Personnel	Air Force Civilians	170,000	159,000	-11,000
Personnel         Army Civilians         205,000         191,000         -14,000           Personnel         Army Guard / Reserve End Strength         530,000         503,500         -26,500           Personnel         Marine Corps Active End Strength         182,000         173,700         -8,300           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Civilians         179,000         167,300         -11,700           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11         10         -1           Sea         Attack Subs         45         51         6 <td>Personnel</td> <td>Air Force Guard/Reserve End Strength</td> <td>170,600</td> <td>167,100</td> <td>-3,500</td>	Personnel	Air Force Guard/Reserve End Strength	170,600	167,100	-3,500
Personnel         Army Guard / Reserve End Strength         530,000         503,500         -26,500           Personnel         Marine Corps Active End Strength         182,000         173,700         -8,300           Personnel         Marine Corps Civilians         22,000         16,500         -5,500           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Civilians         179,000         167,300         -11,700           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11         10         -1           Sea         Amphibious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Com	Personnel	Army Active End Strength	450,000	516,300	66,300
Personnel         Marine Corps Active End Strength         182,000         173,700         -8,300           Personnel         Marine Corps Civilians         22,000         16,500         -5,500           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11         10         -1           Sea         Amphibious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         97         96         -1           Space / Cyber / Comms         Cyber Teams         133	Personnel	Army Civilians	205,000	191,000	-14,000
Personnel         Marine Corps Civilians         22,000         16,500         -5,500           Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Civilians         179,000         167,300         -11,700           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11         10         -1           Sea         Amphibious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         97         96         -1           Sea         Support Vessels         36         53         17	Personnel	Army Guard / Reserve End Strength	530,000	503,500	-26,500
Personnel         Marine Corps Reserve End Strength         38,500         43,100         4,600           Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Civilians         179,000         167,300         -11,700           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11         10         -1           Sea         Amphilbious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         GPS (Hosted)         0         6         6     <	Personnel	Marine Corps Active End Strength	182,000	173,700	-8,300
Personnel         Navy Active End Strength         330,000         326,900         -3,100           Personnel         Navy Civilians         179,000         167,300         -11,700           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11         10         -1           Sea         Amphibious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Cruise Missile Subs         2         2         0           Sea         Cruise Missile Subs         2         2         0           Sea         Small Surface Combatants         97         96         -1           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Co	Personnel	Marine Corps Civilians	22,000	16,500	-5,500
Personnel         Navy Civilians         179,000         167,300         -11,700           Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11         10         -1           Sea         Amphibious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms	Personnel	Marine Corps Reserve End Strength	38,500	43,100	4,600
Personnel         Navy Reserve End Strength         58,900         57,400         -1,500           Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11         10         -1           Sea         Amphibious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber /	Personnel	Navy Active End Strength	330,000	326,900	-3,100
Personnel         OSD and Defense Agency Civilians         198,000         188,000         -10,000           Sea         Aircraft Carriers         11         10         -1           Sea         Amphibious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         2           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Spac	Personnel	Navy Civilians	179,000	167,300	-11,700
Sea         Aircraft Carriers         11         10         -1           Sea         Amphibious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Military)         5         8         3           Space / Cyber	Personnel	Navy Reserve End Strength	58,900	57,400	-1,500
Sea         Amphibious Ships         37         36         -1           Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         Missile Warning (GEO/HEO)         31         40         9           Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Commercial)         0         7         7	Personnel	OSD and Defense Agency Civilians	198,000	188,000	-10,000
Sea         Attack Subs         45         51         6           Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Narrowband SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2 <td>Sea</td> <td>Aircraft Carriers</td> <td>11</td> <td>10</td> <td>-1</td>	Sea	Aircraft Carriers	11	10	-1
Sea         Combat Logistics Force         29         38         9           Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Sea	Amphibious Ships	37	36	-1
Sea         Cruise Missile Subs         2         2         0           Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Military)         5         8         3           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Sea	Attack Subs	45	51	6
Sea         Large Surface Combatants         97         96         -1           Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Military)         5         8         3           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Sea	Combat Logistics Force	29	38	9
Sea         Small Surface Combatants         46         33         -13           Sea         Support Vessels         36         53         17           Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Sea	Cruise Missile Subs	2	2	0
Sea         Support Vessels         36         53         17           Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Sea	Large Surface Combatants	97	96	-1
Space / Cyber / Comms         Cyber Teams         133         178         45           Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Sea	Small Surface Combatants	46	33	-13
Space / Cyber / Comms         GPS (Hosted)         0         6         6           Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Narrowband SATCOM (Military)         5         8         3           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Sea	Support Vessels	36	53	17
Space / Cyber / Comms         GPS (MEO)         31         40         9           Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Narrowband SATCOM (Military)         5         8         3           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Space / Cyber / Comms	Cyber Teams	133	178	45
Space / Cyber / Comms         Missile Warning (GEO/HEO)         8         10         2           Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Narrowband SATCOM (Military)         5         8         3           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Space / Cyber / Comms	GPS (Hosted)	0	6	6
Space / Cyber / Comms         Missile Warning (Hosted)         0         4         4           Space / Cyber / Comms         Narrowband SATCOM (Commercial)         0         2         2           Space / Cyber / Comms         Narrowband SATCOM (Military)         5         8         3           Space / Cyber / Comms         Protected SATCOM (Strategic)         6         9         3           Space / Cyber / Comms         Protected SATCOM (Tactical)         0         7         7           Space / Cyber / Comms         Wideband SATCOM (Commercial)         0         2         2	Space / Cyber / Comms	GPS (MEO)	31	40	9
Space / Cyber / CommsNarrowband SATCOM (Commercial)022Space / Cyber / CommsNarrowband SATCOM (Military)583Space / Cyber / CommsProtected SATCOM (Strategic)693Space / Cyber / CommsProtected SATCOM (Tactical)077Space / Cyber / CommsWideband SATCOM (Commercial)022	Space / Cyber / Comms	Missile Warning (GEO/HEO)	8	10	2
Space / Cyber / CommsNarrowband SATCOM (Military)583Space / Cyber / CommsProtected SATCOM (Strategic)693Space / Cyber / CommsProtected SATCOM (Tactical)077Space / Cyber / CommsWideband SATCOM (Commercial)022	Space / Cyber / Comms	Missile Warning (Hosted)	0	4	4
Space / Cyber / CommsProtected SATCOM (Strategic)693Space / Cyber / CommsProtected SATCOM (Tactical)077Space / Cyber / CommsWideband SATCOM (Commercial)022	Space / Cyber / Comms	Narrowband SATCOM (Commercial)	0	2	2
Space / Cyber / Comms     Protected SATCOM (Tactical)     0     7     7       Space / Cyber / Comms     Wideband SATCOM (Commercial)     0     2     2	Space / Cyber / Comms	Narrowband SATCOM (Military)	5	8	3
Space / Cyber / Comms Wideband SATCOM (Commercial) 0 2 2	Space / Cyber / Comms	Protected SATCOM (Strategic)	6	9	3
	Space / Cyber / Comms	Protected SATCOM (Tactical)	0	7	7
Charge / Cubay / Common Wideband CATCOM (Military)	Space / Cyber / Comms	Wideband SATCOM (Commercial)	0	2	2
Space / Cyber / Comms   Wideband Salcowi (Military) 10   13   3	Space / Cyber / Comms	Wideband SATCOM (Military)	10	13	3

## **APPENDIX F**

## **Defense Excursion Defense Funding Levels**

### **Defense Priorities**

#### ADJUSTMENTS BY CATEGORY



### ADJUSTMENTS BY CATEGORY (THEN-YEAR \$ BILLIONS)

Category	Air	Ground	Logistics & Basing	Missile Defense	Munitions	Nuclear Forces	R&D	Readiness	Sea	SOF	Space / Cyber / Comms
Adds	152.4	72.4	97.4	36.4	90.2	15.7	79.6	35.2	75.7	20.5	119.4
Adds- People	12.5	63.1	5.0	1.6	0.8	0.0	0.0	0.0	2.2	9.5	1.1
Cuts	-54.9	-19.2	0.0	0.0	0.0	0.0	0.0	-5.9	-36.1	0.0	0.0
Cuts- People	-11.0	-43.2	0.0	-0.1	0.0	0.0	0.0	0.0	-3.7	0.0	0.0

### **NET PERSONNEL CHANGE**

	USAF Active	USAF Guard/ Reserve	USA Active	USA Guard/ Reserve	USN Active	USN Guard/ Reserve	USMC Active	USMC Guard/ Reserve
FYDP 1	5,500	-1,100	40,100	-22,200	-800	-1,500	-7,700	4,600
FYDP 2	4,900	-2,400	26,200	-4,300	-2,300	0	-600	0
End Strength	321,600	167,100	516,300	503,500	326,900	57,400	173,700	43,100

### LIST OF ACRONYMS

A2/AD anti-access/area-denial ΑI artificial intelligence

**ASAT** anti-satellite

**ASCM** anti-ship cruise missile **ATGM** anti-tank guided missile

bbl (oil) barrel

BCA **Budget Control Act** 

C4ISR Command, Control, Communications, Computers, Intelligence, Surveillance,

and Reconnaissance

**CBO** Congressional Budget Office CCP Chinese Communist Party

CONUS continental U.S.

Center for Strategic and Budgetary Assessments **CSBA** 

DIB defense industrial base DoD Department of Defense

**DPRK** Democratic People's Republic of Korea

**EMP** electromagnetic pulse

**ETO European Theater of Operations** 

FIC first island chain FON freedom of navigation

FΥ Fiscal Year

**FYDP** Future Years Defense Program

**GDP** gross domestic product

**GLCM** ground-launched cruise missile **GPS** Global Positioning System

G-RAMM guided rockets, artillery, mortars, and missiles

**IADS** integrated air defense system

**IDF** Israeli Defense Force

**IED** improvised explosive devices

INF Intermediate-Range Nuclear Forces

INS inertial navigations systems

**INSS** Institute for National Security Studies ISIL Islamic State of Iraq and the Levant

ISIS Islamic State of Iraq and Syria

**ISR** Intelligence, Surveillance and Reconnaissance

### LIST OF ACRONYMS

IT information technology

JCPOA Joint Comprehensive Plan of Action

JGSDF Japan Ground Self-Defense Force

JIEDDO Joint Improvised Explosive Device Defeat Organization

JIT just-in-time

METO Middle East Theater of Operations

mmt million metric tons

MRAP Mine-Resistant Ambush Protected

NATO North Atlantic Treaty Organization

NSC National Security Council

NSDD National Security Decision Directive

OBOR One Belt, One Road

OCO Overseas Contingency Operations
OMB Office of Management and Budget
OSD Office of the Secretary of Defense

PGM precision-guided munitions
PLA People's Liberation Army
PPP purchasing power parity
QDR Quadrennial Defense Review

RF radiofrequency
ROK Republic of Korea

R&D

SIOP Single Integrated Operational Plan

research and development

SOF Special Operations Forces
SSBN ballistic missile submarines
SSGN guided-missile submarine

TFR total fertility rate

**THAAD** Terminal High Altitude Area Defense

UAV United Arab Emirates
UAV unmanned aerial vehicle

USSR Union of Soviet Socialist Republics
UUV Unmanned underwater vehicle

VLS vertical launch system

WPTO Western Pacific Theater of Operations



Center for Strategic and Budgetary Assessments

1667 K Street, NW, Suite 900 Washington, DC 20006 Tel. 202-331-7990 • Fax 202-331-8019 www.csbaonline.org