## C1 - Xi DA

**Xi’s regime is stable now, but its success depends on strong growth and private sector development.**

**Mitter and Johnson 21**

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**In China, however, growth has come in the context of stable communist rule,** suggesting that **democracy and growth are not inevitably mutually dependent**. In fact, **many Chinese believe that the country’s recent economic achievements**—**large-scale poverty reduction, huge infrastructure investment, and development as a world-class tech innovator**—have come about because of, not despite, China’s authoritarian form of government. Its **aggressive handling of Covid-19—in sharp contrast to that of many Western countries with higher death rates and later, less-stringent lockdowns—has, if anything, reinforced that view. China has also defied predictions that its authoritarianism would inhibit its capacity to** [**innovate**](https://hbr.org/2011/06/what-the-west-doesnt-get-about-china)**.** **It is a global leader in AI, biotech, and space exploration.** Some of its technological successes have been driven by market forces: People wanted to buy goods or communicate more easily, and the likes of Alibaba and Tencent have helped them do just that. But **much of the technological progress has come from a highly innovative and well-funded military that has invested heavily in China’s burgeoning new industries.** This, of course, mirrors the role of U.S. defense and intelligence spending in the development of Silicon Valley. **But in China the consumer applications have come faster, making more obvious the link between government investment and products and services that benefit individuals.** That’s why **ordinary Chinese people see Chinese companies such as Alibaba, Huawei, and TikTok as sources of national pride—international vanguards of Chinese success—rather than simply sources of jobs or GDP, as they might be viewed in the West.**

Thus July 2020 polling data from the Ash Center at Harvard’s Kennedy School of Government revealed 95% satisfaction with the Beijing government among Chinese citizens. Our own experiences on the ground in China confirm this. Most ordinary people we meet don’t feel that the authoritarian state is solely oppressive, although it can be that; for them it also provides opportunity. A cleaner in Chongqing now owns several apartments because the CCP reformed property laws. A Shanghai journalist is paid by her state-controlled magazine to fly around the world for stories on global lifestyle trends. A young student in Nanjing can study propulsion physics at Beijing’s Tsinghua University thanks to social mobility and the party’s significant investment in scientific research.

**Xi has committed to the commercial space industry as the linchpin of China’s rise – the aff is seen as a complete 180**

**Patel 21**

 [Neel V. Patel, Neel is a space reporter for MIT Technology Review. 1-21-2021, "China’s surging private space industry is out to challenge the US," MIT Technology Review,<https://www.technologyreview.com/2021/01/21/1016513/china-private-commercial-space-industry-dominance/> accessed 12/14/21] Adam

Until recently, China’s space activity has been overwhelmingly dominated by two state-owned enterprises: the China Aerospace Science & Industry Corporation Limited (CASIC) and the China Aerospace Science and Technology Corporation (CASC). A few **private space firms have been allowed to operate in the country for a while**: for example, there’s the China Great Wall Industry Corporation Limited (in reality a subsidiary of CASC), which has provided commercial launches since it was established in 1980. But for the most part, China’s commercial space industry has been nonexistent. Satellites were expensive to build and launch, and they were too heavy and large for anything but the biggest rockets to actually deliver to orbit. The costs involved were too much for anything but national budgets to handle. That **all changed this past decade as the costs of making satellites and launching rockets plunged.** In 2014, a year **after** **Xi Jinping took over as the new leader of China,** **[and] the Chinese government decided to treat civil space development as a key area of innovation,** as it had **already** **begun doing with AI and solar power**. It **issued a policy directive called** [**Document 60**](https://archive.md/o/bc9l4/www.cpppc.org/en/zy/994006.jhtml) **that year to enable large private investment in companies interested in participating in the space industry.** “**Xi’s goal was that if China has to become a critical player in technology, including in civil space and aerospace**, **it was critical to develop a space ecosystem that includes the private sector**,” says Namrata Goswami, a geopolitics expert based in Montgomery, Alabama, who’s been studying China’s space program for many years. “**He was taking a cue from the American private sector to encourage innovation from a talent pool that extended beyond state-funded organizations.”** As a result, there are **now 78 commercial space companies operating in China,** according to a [**2019 report by the Institute for Defense Analyses**](https://archive.md/o/bc9l4/https:/www.ida.org/-/media/feature/publications/e/ev/evaluation-of-chinas-commercial-space-sector/d-10873.ashx). More than **half have been founded since 201**4, and the vast majority focus on satellite manufacturing and launch services. For example, **Galactic Energy**, founded in February 2018, is building its Ceres rocket to offer rapid launch service for single payloads, while its Pallas rocket is being built to deploy entire constellations. Rival company **i-Space**, formed in 2016, became the first commercial Chinese company to make it to space with its Hyperbola-1 in July 2019. It wants to pursue reusable first-stage boosters that can land vertically, like those from SpaceX. So does **LinkSpace** (founded in 2014), although it also hopes to use rockets to deliver packages from one terrestrial location to another. **Spacety**, founded in 2016, wants to turn around customer orders to build and launch its small satellites in just six months. In December it launched a miniaturized version of a satellite that uses 2D radar images to build 3D reconstructions of terrestrial landscapes. Weeks later, it [**released the first images taken by the satellite**](https://archive.md/o/bc9l4/https:/spacenews.com/spacety-releases-first-sar-images/), Hisea-1, featuring three-meter resolution. Spacety wants to launch a constellation of these satellites to offer high-quality imaging at low cost.  To a large extent, **China is following the same blueprint drawn up by the US**: using **government contracts and subsidies to give these companies a foot** **up**. US firms like SpaceX benefited greatly from NASA contracts that paid out millions to build and test rockets and space vehicles for delivering cargo to the International Space Station. With that experience under its belt, SpaceX was able to attract more customers with greater confidence.  Venture capital is another tried-and-true route. **The IDA report estimates that VC funding for Chinese space companies was up to $516 million in 2018**—far shy of the $2.2 billion American companies raised, but **nothing to scoff at for an industry that really only began seven years ago**. At least **42 companies had no known government funding.** And much of the **government support these companies do receive doesn’t have a federal origin, but a provincial one**. “[These **companies**] are **drawing high-tech development to these local communities,**” says Hines. “And in return, **they’re given more autonomy by the local government.”** While most have headquarters in Beijing, many keep facilities in Shenzhen, Chongqing, and other areas that might draw talent from local universities.  There’s also **one advantage specific to China: manufacturing.** “What is the best country to trust for manufacturing needs?” asks James Zheng, the CEO of Spacety’s Luxembourg headquarters. “It’s **China. It’s the manufacturing center of the world.”** Zheng believes the **country is in a better position than any other to take advantage of the space industry’s new need for mass production of satellites and rockets alike.** Making friends The **most critical strategic reason to encourage a private space sector is to create opportunities for international collaboration**—particularly to **attract customers wary of being seen to mix with the Chinese government.** (US agencies and government contractors, for example, are barred from working with any groups the regime funds.) Document 60 and others issued by China’s National Development and Reform Commission were aimed not just at promoting technological innovation, but also at drawing in foreign investment and maximizing a customer base beyond Chinese borders. “**China realizes there are certain things they cannot get on their own**,” says Frans von der Dunk, a space policy expert at the University of Nebraska–Lincoln. Chinese companies like LandSpace and MinoSpace have worked to accrue funding through foreign investment, escaping dependence on state subsidies. And **by avoiding state funding, a company can also avoid an array of restrictions on what it can and can’t do** (such as constraints on talking with the media). **Foreign investment also makes it easier to compete on a global scale**: you’re **taking on clients around the world, launching from other countries, and bringing talent from outside China.** Although **China is taking inspiration from the US in building out its private industry,** the **nature of the Chinese state also means these new companies face obstacles that their rivals in the West don’t have to worry about**. While Chinese companies may look **private on paper**, they must **still submit to government guidance and control**, and accept some level of interference. It may be difficult for them to make a case to potential overseas customers that they are independent. The **distinction between companies that are truly private and those that are more or less state actors is still quite fuzzy**, especially if the **government is a frequent customer**. “That could still lead to a lack of trust from other partners,” says Goswami. It doesn’t help that the government itself is often [**very cagey about what its national program is even up to**](https://archive.md/o/bc9l4/https:/www.bbc.com/news/science-environment-54076895). And Hines adds that it’s **not always clear exactly how separate these companies are from, say, the People’s Liberation Army**, given the historical ties between the space and defense sectors. “Some of these things will pose significant hurdles for the commercial space sector as it tries to expand,” he says.

**Shifts in regime perception threatens CCP’s legitimacy from nationalist hardliners**

**Weiss 19**

 Jessica Weiss 1-29-2019 “Authoritarian Audiences, Rhetoric, and Propaganda in International Crises: Evidence from China”<http://www.jessicachenweiss.com/uploads/3/0/6/3/30636001/19-01-24-elite-statements-isq-ca.pdf> (Associate Professor of Government at Cornell University)//Elmer

**Public support**—or the appearance of it—**matters to many autocracies.** As Ithiel de Sola Pool writes, **modern dictatorships are “highly conscious of public opinion and make major efforts to affect it.”6 Mao Zedong told his comrades: “When you make revolution, you must first manage public opinion.”7 Because autocracies often rely on nationalist mythmaking,**8 success or failure in defending the national honor in international crises could **burnish the leadership’s patriotic credentials or spark opposition. Shared outrage at the regime’s foreign policy failures could galvanize street protests or elite fissures, creating intraparty upheaval or inviting military officers to step in to restore order. Fearing a domestic backlash, authoritarian leaders may feel compelled to take a tough international stance.** Although authoritarian leaders are rarely held accountable to public opinion through free and fair elections, fears of popular unrest and irregular **ouster often weigh heavily on autocrats seeking to maximize their tenure in office.** Considering the harsh consequences that authoritarian elites face if pushed out of office, **even a small increase in the probability of ouster could alter authoritarian incentives in international crises.**9 A **history of nationalist uprisings make Chinese citizens and leaders especially aware of the linkage between international disputes and domestic unrest.** The **weakness of the PRC’s predecessor in defending Chinese sovereignty** at the Paris Peace Conference in 1919 **galvanized protests and a general strike, forcing the government to sack three officials** and reject the Treaty of Versailles, which awarded territories in China to Japan. **These precedents have made Chinese officials particularly sensitive to the appearance of hewing to public opinion. As the People’s Daily chief editor wrote: “History and reality have shown us that public opinion and regime safety are inseparable.”10 One Chinese scholar even claimed: “the Chinese government probably knows the public’s opinion better and reacts to it more directly than even the U.S. government.”11**

**Xi will launch diversionary war to domestic backlash – escalates in multiple hotspots**

**Norris 17**

, William J. Geostrategic Implications of China’s Twin Economic Challenges. CFR Discussion Paper, 2017. (Associate professor of Chinese foreign and security policy at Texas A&M University’s Bush School of Government and Public Service)//Elmer

**Populist pressures might tempt the party leadership to encourage diversionary nationalism.** The logic of this concern is straightforward: the **Communist Party might seek to distract a restless domestic population with adventurism abroad.**19 The **Xi** administration **wants to appear tough in its defense of foreign encroachments against China’s interests.** This need stems from a long-running narrative about how a weak Qing dynasty was unable to defend China in the face of European imperial expansion, epitomized by the Opium Wars and the subsequent treaties imposed on China in the nineteenth century. **The party is particularly sensitive to perceptions of weakness because much of its claim to legitimacy—manifested in Xi’s Chinese Dream campaign today—stems from the party’s claims of leading the restoration of Chinese greatness.** For example, the May Fourth Movement, a popular protest in 1919 that helped catalyze the CPC, called into question the legitimacy of the Republic of China government running the country at that time because the regime was seen as not having effectively defended China’s territorial and sovereignty interests at the Versailles Peace Conference. **Diversionary nationalist frictions would likely occur if the Chinese leadership portrayed a foreign adversary as having made the first move**, thus **forcing Xi to stand up for China’s interests.** An example is the 2012 attempt by the nationalist governor of Tokyo, Shintaro Ishihara, to buy the Senkaku/Diaoyu Islands from a private owner.20 Although the Japanese central government sought to avert a crisis by stepping in to purchase the islands—having them bought and administered by Ishihara’s Tokyo metropolitan government would have dragged Japan into a confrontation with China—China saw this move as part of a deliberate orchestration by Japan to nationalize the islands. Xi seemingly had no choice but to defend China’s claims against an attempt by Japan to consolidate its position on the dispute.21 This issue touched off a period of heated tensions between China and Japan, lasting more than two years.22 Such dynamics are not limited to Japan. Other **possible areas of conflict include**, but are not necessarily limited to, **Taiwan, India, and the South China Sea (especially with the Philippines and Vietnam).** The Chinese government will use such tactics if it believes that the costs are relatively low. Ideally, China would like to appear tough while avoiding material repercussions or a serious diplomatic breakdown. Standing up against foreign encroachment—without facing much blowback—could provide Xi’s administration with a tempting source of noneconomic legitimacy. However, over the next few years, Xi will probably not be actively looking to get embroiled abroad. Cushioning the fallout from slower growth while managing a structural economic transition will be difficult enough. Courting potential international crises that distract the central leadership would make this task even more daunting. **Even if the top leadership did not wish to provoke conflict, a smaller budgetary allotment for security could cause** military interests in China to deliberately instigate trouble to justify their claims over increasingly scarce resources. For example, an air force interested in ensuring its funding for a midair tanker program might find the existence of far-flung territorial disputes to be useful in making its case. Such a case would be made even stronger by a pattern of recent frictions that highlights the necessity of greater air power projection. Budgetary pressures may be partly behind a recent People’s Liberation Army reorganization and headcount reduction. A slowing economy might cause a further deceleration in China’s military spending, thus increasing such pressures as budgetary belts tighten. Challenges to Xi’s Leadership Xi Jinping’s efforts to address economic challenges could fail, unleashing consequences that extend well beyond China’s economic health. For example, an economic collapse could give rise to a Vladimir Putin–like redemption figure in China. Xi’s approach of centralizing authority over a diverse, complex, and massive social, political, and economic system is a recipe for brittleness. Rather than designing a resilient, decentralized governance structure that can gracefully cope with localized failures at particular nodes in a network, a highly centralized architecture risks catastrophic, system-level failure. Although centralized authority offers the tantalizing chimera of stronger control from the center, it also puts all the responsibility squarely on Xi’s shoulders. With China’s ascension to great power status, the consequences of internecine domestic political battles are increasingly playing out on the world stage. The international significance of China’s domestic politics is a new paradigm for the Chinese leadership, and one can expect an adjustment period during which the outcome of what had previously been relatively insulated domestic political frictions will likely generate unintended international repercussions. Such dynamics will influence Chinese foreign policy and security behavior. Domestic arguments over ideology, bureaucratic power struggles, and strategic direction could all have ripple effects abroad. Many of China’s party heavyweights still employ a narrow and exclusively domestic political calculus. Such behavior increases the possibility of international implications that are not fully anticipated, raising the risks of strategic miscalculation on the world stage. For example, the factional power struggles that animated the Cultural Revolution were largely driven by domestic concerns, yet manifested themselves in Chinese foreign policy for more than a decade. During this period, China was not the world’s second largest economy and, for much of this time, did not even have formal representation at the United Nations. **If** today’s globally interconnected **China became engulfed in** similar **domestic chaos, the effects would be felt worldwide.23 Weakened Fetters of Economic Interdependence If China successfully transitioned away from its export-driven growth model toward a consumption-driven economic engine over the next four or five years, it could no longer feel as constrained by economic interdependence. To the extent that such constraints are loosened, the U.S.-China relationship will be more prone to conflict and friction**.24 While China has never been the archetypal liberal economic power bent on benign integration with the global economy, its export-driven growth model produced a strong strategic preference for stability. Although past behavior is not necessarily indicative of future strategic calculus, China’s “economic circuit breaker” logic seems to have held its most aggressive nationalism below the threshold of war since 1979. A China that is both comparatively strong and less dependent on the global economy would be a novel development in modern geopolitics. As China changes the composition of its international economic linkages, global integration could place fewer constraints on it. Whereas China has been highly reliant on the import of raw materials and semifinished goods for reexport, a consumption-driven China could have a different international trade profile. China could still rely on imported goods, but their centrality to the country’s overall economic growth would be altered. Imports of luxury goods, consumer products, international brands, and services may not exert a significant constraining influence, since loss of access to such items may not be seen as strategically vital. If these flows were interrupted or jeopardized, the result would be more akin to an inconvenience than a strategic setback for China’s rise. That said, China is likely to continue to highly depend on imported oil even if the economic end to which that energy resource is directed shifts away from industrial and export production toward domestic consumption.

**US–China war goes nuclear**

**Kulacki 20**

[Dr. Gregory Kulacki focuses on cross-cultural communication between the United States and China on nuclear and space arms control and is the China Project Manager for the Global Security Program at the Union of Concerned Scientists, 2020. Would China Use Nuclear Weapons First In A War With The United States?, Thediplomat.com, https://thediplomat.com/2020/04/would-china-use-nuclear-weapons-first-in-a-war-with-the-united-states/] srey

Admiral Charles A. Richard, the head of the U.S. Strategic Command, recently told the Senate Armed Service Committee he “could drive a truck” through the holes in China’s no first use policy. But when Senator John Hawley (R-MO) asked him why he said that, Commander Richard backtracked, described China’s policy as “very opaque” and said his assessment was based on “very little” information. That’s surprising. **China** has been **exceptionally clear about its intentions on the possible first use of nuclear weapons**. On the day of its first nuclear test on October 16, 1964, China declared it “will never at any time or under any circumstances be the first to use nuclear weapons.” **That unambiguous statement has been a cornerstone of Chinese nuclear weapons policy for 56 years and has been repeated frequently in authoritative Chinese publications for domestic and international audiences, including a highly classified training manual for the operators of China’s nuclear forces**. Richard should know about those publications, particularly the training manual. A U.S. Department of Defense translation has been circulating within the U.S. nuclear weapons policy community for more than a decade. The commander’s comments to the committee indicate a familiarity with the most controversial section of the manual, which, in the eyes of some U.S. analysts, indicates there may be some circumstances where **China would use nuclear weapons first in a war with the United States**. This U.S. misperception is understandable, especially given the difficulties the Defense Department encountered translating the text into English. The language, carefully considered in the context of the entire book, articulates a strong reaffirmation of China’s no first use policy. But it also reveals **Chinese military planners are struggling with crisis management and considering steps that could create ambiguity with disastrous consequences.** Towards the end of the 405-page text on the operations of China’s strategic rocket forces, in a chapter entitled, “Second Artillery Deterrence Operations,” the authors explain what China’s nuclear forces train to do if **“a strong military power possessing nuclear‐armed missiles and an absolute advantage in high‐tech conventional weapons is carrying out intense and continuous attacks against our major strategic targets and we have no good military strategy to resist the enemy.” The military power they’re talking about is the United States.** The authors indicate **China’s nuclear missile forces train to take specific steps, including increasing readiness and conducting launch exercises, to “dissuade the continuation of the strong enemy’s conventional attacks.”** **The manual refers to these steps as an “adjustment” to China’s nuclear policy and a “lowering” of China’s threshold for brandishing its nuclear forces.** Chinese leaders would only take these steps in extreme circumstances. The text highlights several triggers such as U.S. conventional bombing of China’s nuclear and hydroelectric power plants, heavy conventional bombing of large cities like Beijing and Shanghai, or other acts of **conventional warfare that “seriously threatened” the “safety and survival” of the nation**. U.S. Misunderstanding Richard seems to believe this planned adjustment in China’s nuclear posture means **China is preparing to use nuclear weapons first under these circumstances**. He told Hawley that there are a “number of situations where they may conclude that first use has occurred that do not meet our definition of first use.” The head of the U.S. Strategic Command appears to assume, as do other U.S. analysts, that the **Chinese would interpret these types of U.S. conventional attacks as equivalent to a U.S. first use of nuclear weapons against China**. But that’s not what the text says. “Lowering the threshold” refers to China putting its nuclear weapons on alert — it does not indicate Chinese leaders might lower their threshold for deciding to use nuclear weapons in a crisis. Nor does the text indicate Chinese nuclear forces are training to launch nuclear weapons first in a war with the United States. China, unlike the United States, keeps its nuclear forces off-alert. Its warheads are not mated to its missiles. China’s nuclear-armed submarines are not continuously at sea on armed patrols. The manual describes how China’s nuclear warheads and the missiles that deliver them are controlled by two separate chains of command. Chinese missileers train to bring them together and launch them after China has been attacked with nuclear weapons. All of these behaviors are consistent with a no first use policy. The “adjustment” Chinese nuclear forces are preparing to make if the United States is bombing China with impunity is to place China’s nuclear forces in a state of readiness similar to the state the nuclear forces of the United States are in all the time. This step is intended not only to end the bombing, but also to convince U.S. decision-makers they cannot expect to destroy China’s nuclear retaliatory capability if the crisis escalates. Chinese Miscalculation Unfortunately, alerting Chinese nuclear forces at such a moment could have terrifying consequences. Given the relatively small size of China’s nuclear force, a U.S. president might be tempted to try to limit the possible damage from a Chinese nuclear attack by destroying as many of China’s nuclear weapons as possible before they’re launched, especially if the head of the U.S. Strategic Command told the president China was preparing to strike first. One study concluded that if the **United States used nuclear weapons to attempt to knock out a small fraction of the Chinese ICBMs that could reach the United States it may kill tens of millions of Chinese civilians**. The authors of the text assume **alerting China’s nuclear forces would “create a great shock in the enemy’s psyche.”** That’s a fair assumption. But they also assume this shock could “dissuade the continuation of the strong enemy’s conventional attacks against our major strategic targets.” That’s highly questionable. **There is a substantial risk the United States would respond to this implicit Chinese threat to use nuclear weapons by escalating, rather than halting, its conventional attacks**. If China’s nuclear forces were targeted, it would put even greater strain on the operators of China’s nuclear forces. **A slippery slope to nuclear war** Chinese military planners are aware that attempting to coerce the United States into halting conventional bombardment by alerting their nuclear forces could fail. They also know it might trigger a nuclear war. But if it does, they are equally clear China won’t be the one to start it. Nuclear attack is often preceded by nuclear coercion. Because of this, in the midst of the process of a high, strong degree of nuclear coercion we should prepare well for a nuclear retaliatory attack. The more complete the preparation, the higher the credibility of nuclear coercion, the easier it is to accomplish the objective of nuclear coercion, and the lower the possibility that the nuclear missile forces will be used in actual fighting.

**Modern wars don’t stay limited and are likely to cause extinction.**

**Edwards 17**

[(Paul N. Edwards, CISAC’s William J. Perry Fellow in International Security at Stanford’s Freeman Spogli Institute for International Studies. Being interviewed by EarthSky/card is only parts of the interview directly from Paul Edwards.) “How nuclear war would affect Earth’s climate,” EarthSky, September 8, 2017, earthsky.org/human-world/how-nuclear-war-would-affect-earths-climate] TDI

We are not talking enough about **the climatic effects of nuclear war**. The “nuclear winter” theory of the mid-1980s played a significant role in the arms reductions of that period. But with the collapse of the Soviet Union and the reduction of U.S. and Russian nuclear arsenals, this aspect of nuclear war has faded from view. That’s not good. In the mid-2000s, climate scientists such as Alan Robock (Rutgers) took another look at nuclear winter theory. This time around, they used much-improved and much more detailed climate models than those available 20 years earlier. They also tested the potential effects of smaller nuclear exchanges. The result: an exchange involving just 50 nuclear weapons — the kind of thing we might see in an India-Pakistan war, for example — could loft 5 billion kilograms of smoke, soot and dust high into the stratosphere. That’s enough to cool the entire planet by about 2 degrees Fahrenheit (1.25 degrees Celsius) — about where we were during the Little Ice Age of the 17th century. Growing seasons could be shortened enough to create really significant food shortages. So the climatic effects of even a relatively small nuclear war would be planet-wide. What about a larger-scale conflict? A U.S.-Russia war currently seems unlikely, but if it were to occur, hundreds or even thousands of nuclear weapons might be launched. The climatic consequences **would be catastrophic:** global average **temperatures would drop** as much as **12 degrees Fahrenheit** (7 degrees Celsius) for up to several years — temperatures last seen during the great ice ages. Meanwhile, smoke and dust circulating in the stratosphere would darken the atmosphere enough to inhibit photosynthesis, causing disastrous crop failures, widespread famine and massive ecological disruption. **The effect would be similar to** that of **the** giant **meteor** believed to be **responsible for the extinction of the dinosaurs.** **This time, we would be the dinosaurs.** Many people are concerned about North Korea’s advancing missile capabilities. Is nuclear war likely in your opinion? At this writing, I think **we are closer to a nuclear war** than we have been **since the early 1960s**. In the North Korea case, both Kim Jong-un and President Trump are bullies inclined to escalate confrontations. President Trump lacks impulse control, and there are precious few checks on his ability to initiate a nuclear strike. We have to hope that our generals, both inside and outside the White House, can rein him in. North Korea would most certainly “lose” a nuclear war with the United States. But many millions would die, including hundreds of thousands of Americans currently living in South Korea and Japan (probable North Korean targets). Such vast damage would be wrought in Korea, Japan and Pacific island territories (such as Guam) that any “victory” wouldn’t deserve the name. Not only would that region be left with horrible suffering amongst the survivors; it would also immediately face famine and rampant disease. Radioactive fallout from such a war would spread around the world, including to the U.S. It has been more than 70 years since the last time a nuclear bomb was used in warfare. What would be the effects on the environment and on human health today? To my knowledge, most of the changes in nuclear weapons technology since the 1950s have focused on making them smaller and lighter, and making delivery systems more accurate, rather than on changing their effects on the environment or on human health. So-called “battlefield” weapons with lower explosive yields are part of some arsenals now — but **it’s** quite **unlikely that any exchange** between two nuclear powers **would stay limited** to these smaller, less destructive bombs.

## 2 – Heg DA

**US leads the private space sector now but other countries sectors are growing— US private sector is key to growth**

**Harding 7/16** [(Luke, a Guardian foreign correspondent. His book Shadow State is published by Guardian Faber. Click here for Luke's public key) “The space race is back on – but who will win?” The Guardian, 7/16/21.<https://www.theguardian.com/science/2021/jul/16/the-space-race-is-back-on-but-who-will-win>] RR

**Half a century on, space has opened up**. It is less ideological and a lot more crowded. About 72 countries have space programmes, including India, Brazil, Japan, Canada, South Korea and the UAE. The European Space Agency is active too, while the UK boasts the most private space startups after the US.

**Space today is also highly commercial.** On Sunday Richard Branson flew to the edge of space and back again in his Virgin Galactic passenger rocket. On Tuesday, Branson’s fellow billionaire Jeff Bezos is due to travel in his own reusable craft, New Shepard, built by the Amazon founder’s company Blue Origin and launched from west Texas.

Non-state actors play an increasingly important role in space exploration. Elon Musk’s SpaceX vehicles have made numerous flights to the International Space Station (ISS), and since last year they have transported people as well as cargo. Later this year Musk is due to send his own all-civilian crew into orbit – though he isn’t going himself.

Even so, space still reflects tensions on Earth. “Astropolitics follows terrapolitics,” says Mark Hilborne, a lecturer in defence studies at King’s College London. Up there anything goes, he adds. “Space governance is a bit fuzzy. Laws are few and very old. They are not written for asteroid mining or for a time when companies dominate.”

**The biggest challenge to US space supremacy** comes not from Russia – heir to the Soviet Union’s pioneering space programme, which launched the Sputnik satellite and got the first human into space in the form of Yuri Gagarin – **but from China.**

In 2011 Congress prohibited US scientists from cooperating with Beijing. Its fear: scientific espionage. Taikonauts are banned from visiting the ISS, which has hosted astronauts from 19 countries over the past 20 years. The station’s future beyond 2028 is uncertain. Its operations may yet be extended in the face of increasing Chinese competition.

In its annual threat assessment this April, the office of the US Director of National Intelligence (DNI) described China as a “near-peer competitor” pushing for global power. It warns: **“Beijing is working to match or exceed US capabilities in space to gain the military, economic, and prestige benefits that Washington has accrued from space leadership.”**

The Biden administration suspects Chinese satellites are being used for non-civilian purposes. The People’s Liberation Army integrates reconnaissance and navigation data in military command and control systems, the DNI says. “Satellites are inherently dual use. It’s not like the difference between an F15 fighter jet and a 737 passenger plane,” Hilborne says.

Once China completes the Tiangong space station next year, it is likely to invite foreign astronauts to take part in missions. One goal: to build new soft-power alliances. Beijing says interest from other countries is enormous. The low Earth orbit station is part of an ambitious development strategy in the heavens rather than on land – a sort of belt and rocket initiative.

According to Alanna Krolikowski, an assistant professor at the Missouri University of Science and Technology, a “bifurcation” of space exploration is under way. In one emerging camp are states led by China and Russia, many of them authoritarian; in the other are democracies and “like-minded” countries aligned with the US.

**Continued success of private space companies is key to secure space for the US.**

**Macias & Sheetz 2/3** [(Amanda, covers global trade and foreign policy for CNBC. She joined CNBC’s Washington bureau in 2018 from CBS Radio. Amanda studied Broadcast Journalism and Finance at the University of Missouri. She is a Knight-Bagehot Fellow in Economics and Business Journalism at Columbia University in New York.) (Micheal, Space Reporter) “Space Force general says success of private companies like SpaceX helps U.S. secure the space domain” CNBC, 2/3/21.<https://www.cnbc.com/2021/02/03/space-force-general-america-owns-space-with-help-from-elon-musks-spacex.html>] RR

WASHINGTON – The nation’s top general leading the U.S. military mission in space said Wednesday that he is excited about Wall Street and **billionaire investment in the space industry**, which has sparked renewed interest in the field among Americans and strong recruitment at the Pentagon’s youngest branch.

“There is a ton of excitement across America on space in all sectors,” said Gen. John Raymond, the U.S. Space Force’s chief of operations, when asked by CNBC about the **strides made by private space companies like Elon Musk’s SpaceX.**

“I’ve talked about people knocking on our door wanting to come into the Space Force in numbers greater than what we have slots to fill. I’ve talked in the past about how universities are seeing more students apply for space STEM degrees, which I think is going to be great for our nation,” Raymond added.

“I’m excited about all of it, both what we’re doing here on national security and what’s going on in the commercial industry that **we can leverage the advantage**,” the four-star general said without specifically naming any companies.

“**The U.S. has always, has long understood that we are stronger with a secure and stable space domain and all of those sectors play into that,”** Raymond said.

The U.S. Space Force, the Pentagon’s youngest branch, has increasingly looked to partner with the private sector as companies and investors pour into the space industry. The Pentagon is closely watching the progress of rocket builders like Rocket Lab, Astra and Virgin Orbit in addition to SpaceX.

Raymond’s comments came on the heels of SpaceX announcing this week that it will fly its first all-civilian crew into orbit later this year, a mission known as Inspiration 4.

The landmark flight, led by billionaire Jared Isaacman, is aimed at using high-profile space tourism to raise support for St. Jude Children’s Research Hospital. Three yet-to-be-announced passengers will accompany Isaacman on the multiday journey around the Earth, with two of the seats to be decided in public online competitions this month.

SpaceX announces first space mission with all-civilian crew

Raymond also called out NASA’s Crew-1 mission, which was the first operational launch of SpaceX’s Crew Dragon spacecraft.

“If you look at what’s going on in the civil sector with the launch of U.S. astronauts, and in this last launch a Japanese astronaut from U.S. soil on a commercial launch vehicle, there’s a ton of excitement there,” he said.

Raymond did not provide a reaction to SpaceX’s Starship rocket test flight on Tuesday, which resulted in an explosion as it attempted to land.

Starship prototype SN9 launched successfully to about 33,000 feet but, like the previous prototype flight in December, the rocket smashed into the ground while attempting to land.

Private investment in space companies last year set a fresh annual record, despite industry fears that the Covid-19 pandemic would end the past decade’s momentum, according to a report by Space Capital last month. Builders of rockets and satellites brought in $8.9 billion in 2020, with venture capital and angel investors continuing to pour funds into space businesses.

**Space privatization key to US heg— Russia and China benefit from a weakened US.**

**Weichert 17** [(Brandon J.,  a former Congressional staff member who holds a Master of Arts in Statecraft & National Security Affairs from the Institute of World Politics in Washington, D.C. He is the founder of The Weichert Report: An Online Journal of Geopolitics, and is currently completing a book on national security space policy.) “The High Ground: The Case for U.S. Space Dominance,” Science Direct, 2017.<https://www.sciencedirect.com/science/article/abs/pii/S0030438717300108>] RR

**The global order is currently disordered.** New states with completely different values from the United States are rising to prominence. Many of those states possess strategic cultures opposed to the American hegemony that has defined the post-Cold War order.

Yet, the United States still maintains greater power, wealth, and capabilities than the other states seeking to displace her. **For the United States to maintain its hegemonic position, it must also maintain a dominant position in space**. As has been noted before, space is the ultimate high ground from which a state can dominate all of the other strategic domains (land, air, sea, and cyberspace). The United States has enjoyed the benefits from dominating this region. Yet, states like China and Russia are moving forward with their own plans not only to deny America access to space, but also to dominate this realm. **These states would then benefit from commanding the high ground of space at America’s expense**.

Since at least the Nixon Administration, space has come to be viewed in a militarized light. By the end of the Cold War, space had not only been militarized, but many were searching for a way to weaponize it. Just as the drift toward militarization of space was inexorable, so too is the desire for weaponization. As rival states begin to hone their space skills, the United States should seek to obtain the first move advantage **by capitalizing on its already sizable lead in space by weaponizing it first**. The placing of weapons in orbit would not only increase the costs of attacking existing U.S. space architecture, but it would also lend itself to increasing global stability by raising the costs of aggressive behavior on belligerents. Whatever negatives the weaponization of space may have, nothing is more negative for America than to find itself losing its dominance of space to a state that has placed weapons in orbit first.

To be passive and allow temporary budgetary constraints to dictate longterm space strategy will damage irrevocably the U.S. position in orbit. Our enemies are aware of our shortsighted preference for space superiority over dominance and are moving toward degrading the American advantage in space.23 Space dominance will not only rebuff rising states from challenging the United States, but it will also **lend stability to the world order**. This proactive stance was the goal of Ronald Reagan’s Strategic Defense Initiative. **It must be the goal of U.S. policymakers today.**24

**US leadership in this decade solves global war and results in a peaceful end to Chinese revisionism**

Erickson and Collins 10/21 [(Andrew, A professor of strategy in the U.S. Naval War College’s China Maritime Studies Institute)(Gabriel, Baker Botts fellow in energy and environmental regulatory affairs at Rice University’s Baker Institute for Public Policy) “A Dangerous Decade of Chinese Power Is Here,” Foreign Policy, 10/18/2021]

**U.S. and allied policymakers are facing the most important foreign-policy challenge of the 21st century.** China’s power is peaking**; so is the political position of Chinese President Xi Jinping and the Chinese Communist Party’s (CCP)** domestic strength. **In the long term, China’s** likely decline **after this peak is a** good thing. **But right now, it creates a** decade of danger **from a system that increasingly realizes it only has a** short time **to fulfill some of its** most critical**, long-held** goals.

Within the next five years, China’s leaders are likely to conclude that its deteriorating demographic profile, structural economic problems, and technological estrangement from global innovation centers are eroding its leverage to **annex Taiwan** and achieve other major strategic objectives. As Xi internalizes these challenges, his foreign policy is likely to become even more **accepting of risk**, feeding on his nearly decadelong track record of successful revisionist action against the rules-based order. Notable examples include China occupying and militarizing sub-tidal features in the **South China Sea**, ramping up air and maritime incursions against **Japan** and **Taiwan**, pushing border challenges against **India**, occupying **Bhutanese** and **Tibetan** lands, perpetrating **crimes against humanity** in [Xinjiang](https://www.nytimes.com/interactive/2019/11/16/world/asia/china-xinjiang-documents.html), and coercively enveloping **Hong Kong.**

The relatively low-hanging fruit is plucked, but **Beijing is emboldened to grasp the biggest single revisionist prize: Taiwan.**

Beijing’s actions over the last decade have triggered backlash, such as with the so-called AUKUS deal, but **concrete constraints** on China’s strategic freedom of action may not fully manifest until **after 2030.** It’s remarkable and dangerous that China has paid few costs for its actions over the last 10 years, even as its military capacities have rapidly grown.

**Beijing will likely conclude** that under current diplomatic, economic, and force postures for both **“gray zone”** and **high-end** scenarios, the 2021 to late 20**20s timeframe still favors China**—and is attractive for its 68-year-old leader, who seeks a historical achievement at the zenith of his career.

U.S. planners must mobilize resources, effort, and risk acceptance to maximize power and thereby deter Chinese aggression in the coming decade—**literally starting now**—and innovatively employ assets that currently exist or can be operationally assembled and scaled within the next several years. That will be the first step to pushing back against China during the 2020s—a decade of danger—before what will likely be a **waning of Chinese power.**

As Beijing aggressively seeks to undermine the international order and promotes a narrative of inevitable Chinese strategic domination in Asia and beyond, it creates a dangerous contradiction between its goals and its medium-term capacity to achieve them. China is, in fact, likely nearing the **apogee of its relative power**; and by 2030 to 2035, it will cross a **tipping point** from which it may **never recover** strategically. Growing headwinds constraining Chinese growth, while not publicly acknowledged by Beijing, help explain Xi’s high and apparently **increasing risk tolerance.** Beijing’s window of strategic opportunity is sliding shut.

China’s **skyrocketing household debt** levels exemplify structural economic constraints that are emerging much earlier than they did for the United States when it had similar per capita GDP and income levels. Debt is often a wet blanket on consumption growth. A 2017 analysis published by the Bank for International Settlements found that once the household debt-to-GDP ratio in a sample of 54 countries exceeded 60 percent, “the negative long-run effects on consumption tend to intensify.” China’s household debt-to-GDP ratio surpassed that empirical danger threshold in late 2020. Rising debt service burdens thus threaten Chinese consumers’ capacity to sustain the domestic consumption-focused “dual circulation” economic model that Xi and his advisors seek to build. China’s growth record during the past 30 years has been remarkable, but past exceptionalism does not confer future immunity from fundamental demographic and economic headwinds.

As debt levels continue to rise at an absolute level that has accelerated almost continuously for the past decade, China also faces a **hollowing out of its working-age population.** This critical segment peaked in 2010 and has since declined, with the rate from 2015 to 2020 nearing 0.6 percent annually—nearly twice the respective pace in the United States. While the United States faces demographic challenges of its own, the disparity between the respective paces of decline highlights its relative advantage compared to its chief geopolitical competitor. Moreover, the United States can choose to access a global demographic and talent dividend via immigration in a way China simply will not be able to do.

Atop surging debt and worsening demographics, **China also faces resource insecurity.** China’s dependence on imported food and energy has grown steadily over the past two decades. Projections from Tsinghua University make a compelling case that China’s oil and gas imports will peak between 2030 and 2035. As China grapples with power shortages, Beijing has been reminded that supply shortfalls equal to even a few percentage points of total demand can have outsized negative impacts.

Domestic resource insufficiency by itself does not hinder economic growth—as the Four Asian Tigers’ multi-decade boom attests. But China is in a different position. Japan and South Korea never had to worry about the U.S. Navy interdicting inbound tankers or grain ships. In fact, the United States was avowedly willing to use military force to protect energy flows from the Persian Gulf region to its allies. Now, as an increasingly energy-secure United States pivots away from the Middle East toward the Indo-Pacific, there is a substantial probability that energy shipping route protection could be viewed in much more differentiated terms—with oil and liquefied natural gas cargoes sailing under the Chinese flag viewed very differently than cargoes headed to buyers in other regional countries.

Each of these dynamics—demographic downshifts, rising debts, resource supply insecurity—either imminently threatens or is already actively interfering with the CCP’s long-cherished goal of achieving a “moderately prosperous society.” Electricity blackouts, real estate sector travails (like those of Evergrande) that show just how many Chinese investors’ financial eggs now sit in an unstable $52 trillion basket, and a solidifying alignment of countries abroad concerned by aggressive Chinese behavior all **raise questions about Xi’s ability to deliver.** With this confluence of adverse events only a year before the next party congress, where personal ambition and survival imperatives will almost drive him to seek anointment as the only Chinese “leader for life” aside from former leader Mao Zedong, the timing only fuels his sense of insecurity. Xi’s anti-corruption campaigns and ruthless removal of potential rivals and their supporters solidified his power but likely also created a quiet corps of opponents who may prove willing to move against him if events create the perception he’s lost the “mandate of heaven.” Accordingly, the baseline assumption should be that Xi’s crown sits heavy and the insecurity induced is thereby intense enough to drive **high-stake**, high-consequence posturing and action.

While Xi is under pressure to act, the external risks are magnified because so far, he has suffered few consequences from taking actions on issues his predecessors would likely never have gambled on. Reactions to party predations in Xinjiang and [Hong Kong](https://home.treasury.gov/policy-issues/financial-sanctions/recent-actions/20210716_33) have been restricted to diplomatic-signaling pinpricks, such as sanctioning responsible Chinese officials and entities, most of whom lack substantial economic ties to the United States. Whether U.S. restraint results from a fear of losing market access or a belief that China’s goals are ultimately limited is not clear at this time.

While the CCP issues retaliatory sanctions against U.S. officials and proclaims a triumphant outcome to its hostage diplomacy, these tactical public actions mask a growing private awareness that China’s latitude for irredentist action is poised to shrink. Not knowing exactly when domestic and external constraints will come to bite—but knowing that when Beijing sees the tipping point in its rearview mirror, major rivals will recognize it too—**amplifies Xi and the party’s anxiety to act on a shorter timeline.** Hence the dramatic acceleration of the last few years.

Just as China is mustering its own strategic actions, so the United States must also intensify its focus and deployment of resources. The United States has taken too long to warm up and confront the central challenge, but it retains **formidable advantages**, agility, and the ability to prevail—**provided it goes all-in now.** Conversely, if Washington fails to marshal its forces promptly, its achievements after 2030 or 2035 will matter little. Seizing the 2020s would enable Beijing to ~~cripple~~ [destroy] the free and open **rules-based order** and entrench its position by economically **subjugating regional neighbors** (including key U.S. treaty allies) **to a degree that could offset the strategic headwinds** China now increasingly grapples with.

Deterrence is never certain. But it **offers the highest probability** of avoiding the certainty that an Indo-Pacific region dominated by a CCP-led China would doom treaty allies, threaten the U.S. homeland, and likely set the stage for worse to come. Accordingly, U.S. planners should immediately mobilize resources and effort as well as accept greater risks to deter Chinese action over the critical next decade.

The greatest threat is armed conflict over Taiwan, where U.S. and allied success or failure will be fundamental and reverberate for the remainder of the century. There is a high chance of a major move against Taiwan by the late 2020s—following an extraordinary ramp-up in People’s Liberation Army capabilities and before Xi or the party state’s power grasp has ebbed or Washington and its allies have fully regrouped and rallied to the challenge.

So how should policymakers assess the potential risk of Chinese action against Taiwan reaching dangerous levels by 2027 or possibly even earlier—as emphasized in the testimonies of Adms. Philip Davidson and John Aquilino? In June, Chairman of the Joint Chiefs Gen. Mark Milley testified to the House of Representatives that Xi had “challenged the People’s Liberation Army to accelerate their modernization programs to develop capabilities to seize Taiwan and move it from 2035 to 2027,” although China does not currently have the capabilities or intentions to conduct an all-out invasion of mainland Taiwan.

**As Edwards stated, major wars lead to nuclear use and thus extinction.**