### Note

This source might be better for the Russia Fill-In DA: <https://www.cnbc.com/2017/03/29/space-arms-race-as-russia-china-emerge-as-rapidly-growing-threats-to-us.html>

# NC

### 1

#### Interpretation: private entities is a generic bare plural. The aff may not defend that the appropriation of outer space by a subset of private entities is unjust.

Nebel 19 Jake Nebel [Jake Nebel is an assistant professor of philosophy at the University of Southern California and executive director of Victory Briefs.] , 8-12-2019, "Genericity on the Standardized Tests Resolution," Briefly, https://www.vbriefly.com/2019/08/12/genericity-on-the-standardized-tests-resolution/ SM

Both distinctions are important. Generic resolutions can’t be affirmed by specifying particular instances. But, since generics tolerate exceptions, plan-inclusive counterplans (PICs) do not negate generic resolutions. Bare plurals are typically used to express generic generalizations. But there are two important things to keep in mind. First, generic generalizations are also often expressed via other means (e.g., definite singulars, indefinite singulars, and bare singulars). Second, and more importantly for present purposes, bare plurals can also be used to express existential generalizations. For example, “Birds are singing outside my window” is true just in case there are some birds singing outside my window; it doesn’t require birds in general to be singing outside my window. So, what about “colleges and universities,” “standardized tests,” and “undergraduate admissions decisions”? Are they generic or existential bare plurals? On other topics I have taken great pains to point out that their bare plurals are generic—because, well, they are. On this topic, though, I think the answer is a bit more nuanced. Let’s see why. 1.1 “Colleges and Universities” “Colleges and universities” is a generic bare plural. I don’t think this claim should require any argument, when you think about it, but here are a few reasons. First, ask yourself, honestly, whether the following speech sounds good to you: “Eight colleges and universities—namely, those in the Ivy League—ought not consider standardized tests in undergraduate admissions decisions. Maybe other colleges and universities ought to consider them, but not the Ivies. Therefore, in the United States, colleges and universities ought not consider standardized tests in undergraduate admissions decisions.” That is obviously not a valid argument: the conclusion does not follow. Anyone who sincerely believes that it is valid argument is, to be charitable, deeply confused. But the inference above would be good if “colleges and universities” in the resolution were existential. By way of contrast: “Eight birds are singing outside my window. Maybe lots of birds aren’t singing outside my window, but eight birds are. Therefore, birds are singing outside my window.” Since the bare plural “birds” in the conclusion gets an existential reading, the conclusion follows from the premise that eight birds are singing outside my window: “eight” entails “some.” If the resolution were existential with respect to “colleges and universities,” then the Ivy League argument above would be a valid inference. Since it’s not a valid inference, “colleges and universities” must be a generic bare plural. Second, “colleges and universities” fails the upward-entailment test for existential uses of bare plurals. Consider the sentence, “Lima beans are on my plate.” This sentence expresses an existential statement that is true just in case there are some lima beans on my plate. One test of this is that it entails the more general sentence, “Beans are on my plate.” Now consider the sentence, “Colleges and universities ought not consider the SAT.” (To isolate “colleges and universities,” I’ve eliminated the other bare plurals in the resolution; it cannot plausibly be generic in the isolated case but existential in the resolution.) This sentence does not entail the more general statement that educational institutions ought not consider the SAT. This shows that “colleges and universities” is generic, because it fails the upward-entailment test for existential bare plurals. Third, “colleges and universities” fails the adverb of quantification test for existential bare plurals. Consider the sentence, “Dogs are barking outside my window.” This sentence expresses an existential statement that is true just in case there are some dogs barking outside my window. One test of this appeals to the drastic change of meaning caused by inserting any adverb of quantification (e.g., always, sometimes, generally, often, seldom, never, ever). You cannot add any such adverb into the sentence without drastically changing its meaning. To apply this test to the resolution, let’s again isolate the bare plural subject: “Colleges and universities ought not consider the SAT.” Adding generally (“Colleges and universities generally ought not consider the SAT”) or ever (“Colleges and universities ought not ever consider the SAT”) result in comparatively minor changes of meaning. (Note that this test doesn’t require there to be no change of meaning and doesn’t have to work for every adverb of quantification.) This strongly suggests what we already know: that “colleges and universities” is generic rather than existential in the resolution. Fourth, it is extremely unlikely that the topic committee would have written the resolution with the existential interpretation of “colleges and universities” in mind. If they intended the existential interpretation, they would have added explicit existential quantifiers like “some.” No such addition would be necessary or expected for the generic interpretation since generics lack explicit quantifiers by default. The topic committee’s likely intentions are not decisive, but they strongly suggest that the generic interpretation is correct, since it’s prima facie unlikely that a committee charged with writing a sentence to be debated would be so badly mistaken about what their sentence means (which they would be if they intended the existential interpretation). The committee, moreover, does not write resolutions for the 0.1 percent of debaters who debate on the national circuit; they write resolutions, at least in large part, to be debated by the vast majority of students on the vast majority of circuits, who would take the resolution to be (pretty obviously, I’d imagine) generic with respect to “colleges and universities,” given its face-value meaning and standard expectations about what LD resolutions tend to mean.

#### It applies to private entities:

#### Upward entailment test – spec fails the upward entailment test because saying that one company’s appropriation is bad does not entail that all companies’ appropriation is bad

#### Adverb test – adding “usually” to the res doesn’t substantially change its meaning

#### Vote neg:

#### 1] Precision –any deviation justifies the aff arbitrarily jettisoning words in the resolution at their whim which decks negative ground and preparation because the aff is no longer bounded by the resolution.

#### 2] Limits—specifying a type of appropriation offers huge explosion in the topic since they get permutations of hundreds of governments, specific companies, and different sectors in the world.

#### Drop the debater to preserve fairness and education – use competing interps –reasonability invites arbitrary judge intervention and a race to the bottom of questionable argumentation

#### Hypothetical neg abuse doesn’t justify aff abuse, and theory checks cheaty CPs

#### No RVIs—it’s their burden to be topical.

### 2

#### Text: People’s Republic of China (PRC) should commit to continuing research and development of the appropriation of outer space by private entities in the PRC. The PRC should give all information and developed products regarding the appropriation of outer space to the United States.

#### The CP solves the AFF – It stops China from deploying space weaponization which solves the whole advantage, BUT it solves the AFF better, even if they win a circumvention argument, because it means the US will always have their tech + its own.

#### It avoids the NB – the US getting their own tech + no defunct tech

#### No perms – we mandate the appropriation of space – the plan bans the CP, so perms are mutually exclusive or sever

### 2

#### Despite resistance, the CCP regime is stable now – but challenges to legitimacy cause lashout

Ball, MA in IR, 20

(Joshua, University of St. Andrews, <https://globalsecurityreview.com/degree-chinas-internal-stability-depend-economic-growth/>, April 10) BW

For decades, Western academics, policymakers, and analysts assumed that China’s embrace of capitalist economic policies would set the stage for democratic reform. Almost three decades later, however, the Chinese Communist Party (CCP) remains firmly in power under the increasingly autocratic leadership of General Secretary Xi Jinping. While the CCP-controlled government faces a range of threats from groups within its borders, the idea of a downturn in the Chinese economy remains a very legitimate threat. The Chinese government has radically modernized its economic policies over the past three decades, completely reversing their initial Marxist or Maoist aversion to providing monetary compensation for labor. These reforms are responsible for the significant growth of the Chinese middle class, which has the potential to be the most influential group in China when looked at in regards to socio-economic status. As a result, the considerably large middle class has come to perceive the CCP as being responsible for their rising levels of prosperity. China has undoubtedly experienced the effects of the 2008-2009 global economic crisis; it indeed fared much better than the majority of the world. However, China still faces many hurdles to overcome. Rising Debt and Escalating Unemployment for Chinese College Graduates It is becoming increasingly difficult in China for college graduates to find jobs, the volume of China’s exports is dropping, and tens of millions of workers are out of work. The possibility of a financial crisis in China could challenge Beijing’s ability to hold up its side of the deal with the population. Since the inception of Jiang Zemin’s ‘Three Represents,’ meant to attract private entrepreneurs to party membership, the middle and upper classes have seen the party as being responsible for their economic well-being. The government provides an environment for a healthy, regulated economy, to encourage the creation of private wealth and property, and in return has its rule legitimized by its people. Arguably, while it is individuals are responsible for the creation of personal wealth, the party made it possible. If the government or party cannot guarantee jobs to the people, there remains the little reason for the people to tolerate the strict control that the party maintains over the state. If the CCP-controlled government cannot sustain economic growth, it could be perceived by members of the growing middle class as violating the social contract that has existed between China’s citizens and the country’s ruling party elite. The CCP could face a challenge to its legitimacy if and when the time comes that it is unable to guarantee a healthy economy, prompting potential discontent from the middle class. Beijing has a track record of effectively suppressing unrest The Chinese government has become particularly adept at maintaining or regaining control over its people via means of physical repression, censorship, and through the creation of an environment where fear of speaking out is a legitimate means of control. Indeed, the likelihood of an economic downturn eliminating the CCP’s influence is minimal. Rising social discontent isn’t likely to be enough to force the party itself from power, but it might be sufficient to tempt some members of the elite to take advantage of the situation to their political benefit, thus leading to internal instability within the party and damaging its credibility. While the CCP has an extraordinary ability to suppress dissent, many argue that it can only contain such dissent for so long. However, due to the rapid proliferation of advanced technologies including surveillance, censorship, and controlled access to information, the Chinese authorities are empowered as never before, to monitor, identify, and censor those whose activities are a perceived threat to the party. Nevertheless, a sustained economic downturn poses a threat to the CCP’s legitimacy. Continued civil unrest on the part of groups desiring independence from CCP rule as a result of religious suppression and ethnic inequality illustrate not-insignificant threats to the party’s ability to maintain total control over the Chinese state. Regardless, the most significant threat to the power monopoly held by the CCP is a pronounced economic downturn.

#### The plan erodes CCP legitimacy. Xi and CCP leadership have made the privatization of space their top priority for military and economic superiority. Marlborough reads yellow:

Patel 21 [(Neel, space reporter for MIT Technology Review, and I also write The Airlock newsletter, your number one source for everything happening off this planet. Before joining, he worked as a freelance science and technology journalist, contributing stories to Popular Science, The Daily Beast, Slate, Wired, the Verge, and elsewhere. Prior to that, he was an associate editor for Inverse, where I grew and led the website’s space coverage.) “China’s surging private space industry is out to challenge the US” MIT Technology Review, 1/21/2021. https://www.technologyreview.com/2021/01/21/1016513/china-private-commercial-space-industry-dominance/] BC

How did China get here—and why?

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, 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 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. More than half have been founded since 2014, 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, 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.

#### Diversionary conflict – it escalates.

Hassid, PhD, 19

(Jonathan, PoliSci@Berkeley, AssistProfPoliSci@IowaState, A Poor China Might Be More Dangerous Than a Rich China, in Foreign Policy Issues for America, ed. Richard Mansbach DPhil and James McCormick PhD, Routledge)

China has a number of political differences and potential conflicts with the United States, some of which are summarized in Chapter 4. From China’s vast maritime territorial claims, the anomalous status of Taiwan to America’s alliances with Japan and South Korea, its treatment of Tibetans and Islamic minorities like the Uighurs, and its reluctance to implement UN-sponsored sanctions to force North Korea to abandon nuclear weapons, there are many potential flash points in the Sino-U.S. relationship. Many analysts noted that at the 19th Party Congress Xi Jinping promoted a more aggressive and muscular foreign policy, promising that China would become a world superpower by 2050. This fact alone could presage eventual conflict with the current reigning superpower, the United States. Indeed, many in China and across Asia feel that President Trump’s pullout from the U.S.-led Trans-Pacific Partnership (TPP) have already signaled US retreat from the region, opening the way for a more assertive Chinese foreign policy. Some analysts go further, arguing that China is even now trying to build its own world order and muscle out U.S. trade influence by signing new bilateral trade agreements with historical U.S. allies like Canada. These signs may point to potential conflict in the future. However there is also reason to be hopeful; relations between the two giants were normalized in the 1970s, and thus far China and the United States have avoided serious conflict. In part this has been a result of U.S. policies in the region and because China has been able to increase its global status peacefully. But perhaps the most important reason conflict has been avoided is because Beijing has looked inwardly, concentrating on generating economic growth within its borders rather than making trouble beyond them. President Donald Trump has repeatedly argued that the United States must be more assertive in foreign affairs and in realizing its national interest regardless of the impact on others. His rhetoric has been highly combative. From vowing to declare China a “currency manipulator” on his first day in office – a claim he has since abandoned – to arguing that China has been cheating America in trade deals and denouncing the U.S. trade deficit with China, Trump has appeared to prefer confronting Beijing rather in engaging and cooperating with China. But this appearance of confrontation may belie a different reality. Many have noted that Trump and his family have personal business ties with China, including large investments and numerous pending trademark applications. Actions like Trump’s 2018 public support for state-owned Chinese tech company ZTE – coming just two days after the Chinese government announced a US $500m investment in a Trump-branded property in Indonesiaiii – further suggest to some that Beijing might be directly manipulating the US president to benefit Chinese foreign policy. Combined with the perception, common in Chinese official circles, that the United States under Trump is actually retreating from its commitments in Asia, the result might be additional areas of potential conflict with China and misperception and misunderstanding between the two. What might happen if there were an unintended Sino-American military confrontation in the South China Sea or the Sea of Japan, just as the Chinese economy slumps and triggers spreading labor unrest and disturbances at home? What might happen if Xi Jinping’s goal of having “no poverty in China by 2020” proves impossible, and China’s middle class becomes alienated from the regime and political dissent spreads owing to acute economic and/or environmental distress? Under such circumstances, China’s history suggests that Xi and other leaders might decide a “minor” foreign conflict would be a way to divert the attention of Chinese citizens from their domestic concerns. In China’s past, as we have seen, such “domestically-influenced” conflicts have been contained, but the very success of these previously limited conflicts might make Chinese leaders overconfident about their ability to avoid military escalation. Mistakes are easy to make, especially if the potential foe has a leader who tweets militant threats. If Beijing sought to distract an unhappy population by stirring up Chinese nationalism toward the United States, Taiwan, or Japan regarding maritime territorial claims, for example, and believes the Trump administration will not intervene, the two might careen toward a war that neither wants. An incident caused by a trigger-happy U.S. pilot or Chinese naval officer might escalate into a war that neither Washington nor Beijing sought. In the end, then, it may arguably better for the Trump administration that China continues to flourish economically. A prosperous China means that the United States has a valuable trading partner and – in certain issues – even a strategic partner. An impoverished China, however, might be bad news for everyone.

### 3

#### Russian space program powerless without a Sino-Russian space alliance right now, but in order to circumvent the plan, China helps Russia fill in as the US’s space leader

Luke Harding {Guardian foreign correspondent. His book [Shadow State](https://guardianbookshop.com/shadow-state-9781783352050.html) is published by Guardian Faber.}, 21 - ("The space race is back on – but who will win?," Guardian, 7-16-2021, https://www.theguardian.com/science/2021/jul/16/the-space-race-is-back-on-but-who-will-win)//marlborough-wr/

The biggest challenge to US space supremacy comes not from [Russia](https://www.theguardian.com/world/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. Russia has traditionally worked closely with the Americans, even when terrestrial relations were bad. Now it is moving closer to Beijing. In March, China and Russia [announced plans to co-build an international lunar research station](https://www.theguardian.com/science/2021/mar/10/china-and-russia-unveil-joint-plan-for-lunar-space-station). The agreement comes at a time when Vladimir Putin’s government has been increasingly isolated and subject to western sanctions. In June, Putin and his Chinese counterpart Xi Jinping renewed a friendship treaty. Moscow is cosying up to Beijing out of necessity, at a time of rising US-China bipolarity. These rival geopolitical factions are fighting over a familiar mountainous surface: the moon. In 2019 a Chinese rover landed on its far side – a first. China is now planning a mission to the moon’s south pole, to establish a robotic research station and an eventual lunar base, which would be intermittently crewed. Nasa, meanwhile, has said it intends to put a woman and a person of colour on the moon by 2024. SpaceX has been hired [to develop a lander](https://www.theguardian.com/science/2021/apr/17/nasa-spacex-moon-spacecraft-elon-musk). The return to the moon – after the last astronaut, commander Eugene Cernan, said goodbye in December 1972 – would be a staging post for the ultimate “giant leap”, Nasa says: sending astronauts to Mars. Krolikowski is sceptical that China will quickly overtake the US to become the world’s leading spacefaring country. “A lot of what China is doing is a reprisal of what the cold war space programmes did in the 1960s and 1970s,” she said. Beijing’s recent feats of exploration have as much to do with national pride as scientific discovery, she says. But there is no doubting Beijing’s desire to catch up, she adds. “The Chinese government has established, or has plans for, programmes or missions in every major area, whether it’s [Mars](https://www.theguardian.com/science/mars) missions, building mega constellations of telecommunications satellites, or exploring asteroids. There is no single area of space activity they are not involved in.” “We see a tightening of the Russia-China relationship,” Krolikowski says. “In the 1950s the Soviet Union provided a wide range of technical assistance to Beijing. Since the 1990s, however, the Russian space establishment has experienced long stretches of underfunding and stagnation. China now presents it with new opportunities.” Russia is poised to benefit from cost sharing, while China gets deep-rooted Russian technical expertise. At least, that’s the theory. “I’m sceptical this joint space project will materialise anytime soon,” says Alexander​ Gabuev, a senior fellow at the Carnegie Moscow Centre. Gabuev says both countries are “techno-nationalist”. Previous agreements to develop helicopters and wide-bodied aircraft saw nothing actually made, he says.

#### Russia and China are in a space arms race- the plan causes China to bow out and Russia wins

Bradley Bowman, Jared Thompson {Bradley Bowman, the senior director of the Center on Military and Political Power at the Foundation for Defense of Democracies, and Jared Thompson, a U.S. Air Force major and visiting military analyst at the Foundation for Defense of Democracies, }, 20 - ("Russia and China Seek to Tie America’s Hands in Space," Foreign Policy, 11-12-2020, https://foreignpolicy.com/2021/03/31/russia-china-space-war-treaty-demilitarization-satellites/)//marlborough-wr/

Consider the actions of the United States’ two great-power adversaries when it comes to anti-satellite weapons. China and Russia have [sprinted](https://thedispatch.com/p/we-must-work-to-prevent-a-space-pearl) to develop and deploy both ground-based and space-based weapons targeting satellites while simultaneously pushing the United States to sign a treaty banning such weapons. To protect its vital space-based military capabilities—including communications, intelligence, and missile defense satellites—and effectively deter authoritarian aggression, Washington should avoid being drawn into suspect international treaties on space that China and Russia have no intention of honoring. The Treaty on the Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects (PPWT), which Beijing and [Moscow](https://undocs.org/en/CD/2181) have submitted at the United Nations, is a perfect example. PPWT signatories [commit](https://undocs.org/pdf?symbol=en/CD/1985) “not to place any weapons in outer space.” It also says parties to the treaty may not “resort to the threat or use of force against outer space objects” or engage in activities “inconsistent” with the purpose of the treaty. On the surface, that sounds innocuous. Who, after all, wants an arms race in space? The reality, however, is that China and Russia are already racing to field anti-satellite weapons and have been for quite some time. “The space domain is competitive, congested, and contested,” Gen. James Dickinson, the head of U.S. Space Command, [said](https://www.defense.gov/Explore/News/Article/Article/2483340/commander-lists-5-tasks-to-ensuring-continued-space-superiority/) in January. “Our competitors, most notably China and Russia, have militarized this domain.” Beijing already has an [operational ground-based anti-satellite missile capability](https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Space_Threat_V14_020119_sm.pdf#page=3). People’s Liberation Army units are training with the missiles, and the U.S. Defense Department [believes](https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF#page=90) Beijing “probably intends to pursue additional [anti-satellite] weapons capable of destroying satellites up to geosynchronous Earth orbit.” That is where America’s most sensitive nuclear communication and missile defense satellites orbit and keep watch. Similarly, Moscow [tested](https://www.spacecom.mil/News/Article-Display/Article/2448334/russia-tests-direct-ascent-anti-satellite-missile/) a ground-based anti-satellite weapon in December that could destroy U.S. or allied satellites in orbit. That attack capability augments a ground-based laser weapon that Russian President Vladimir Putin [heralded](https://tass.com/defense/1034344) in 2018. In a moment of candor, Russia’s defense ministry admitted the system was designed to “fight satellites.” To make matters worse, both countries are also working to deploy space-based—or so-called “[on-orbit](https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Space_Threat_V14_020119_sm.pdf#page=3)”—capabilities to attack satellites.

#### This link turns their first scenario, and unchecked Russian influence risks extinction

Fisher ‘15 (Max, Foreign affairs columnist @ VOX, "How World War III became possible," 6/29, http://www.vox.com/2015/6/29/8845913/russia-war)

That is why, analysts will tell you, today's tensions bear far more similarity to the period before World War I: an unstable power balance, belligerence over peripheral conflicts, entangling military commitments, disputes over the future of the European order, and dangerous uncertainty about what actions will and will not force the other party into conflict. Today's Russia, once more the strongest nation in Europe and yet weaker than its collective enemies, calls to mind the turn-of-the-century German Empire, which Henry Kissinger described as "too big for Europe, but too small for the world." Now, as then, a rising power, propelled by nationalism, is seeking to revise the European order. Now, as then, it believes that through superior cunning, and perhaps even by proving its might, it can force a larger role for itself. Now, as then, the drift toward war is gradual and easy to miss — which is exactly what makes it so dangerous. But there is one way in which today's dangers are less like those before World War I, and more similar to those of the Cold War: the apocalyptic logic of nuclear weapons. Mutual suspicion, fear of an existential threat, armies parked across borders from one another, and hair-trigger nuclear weapons all make any small skirmish a potential armageddon. In some ways, that logic has grown even more dangerous. Russia, hoping to compensate for its conventional military forces' relative weakness, has dramatically relaxed its rules for using nuclear weapons. Whereas Soviet leaders saw their nuclear weapons as pure deterrents, something that existed precisely so they would never be used, Putin's view appears to be radically different. Russia's official nuclear doctrine calls on the country to launch a battlefield nuclear strike in case of a conventional war that could pose an existential threat. These are more than just words: Moscow has repeatedly signaled its willingness and preparations to use nuclear weapons even in a more limited war. This is a terrifyingly low bar for nuclear weapons use, particularly given that any war would likely occur along Russia's borders and thus not far from Moscow. And it suggests Putin has adopted an idea that Cold War leaders considered unthinkable: that a "limited" nuclear war, of small warheads dropped on the battlefield, could be not only survivable but winnable. "It’s not just a difference in rhetoric. It’s a whole different world," Bruce G. Blair, a nuclear weapons scholar at Princeton, told the Wall Street Journal. He called Putin's decisions more dangerous than those of any Soviet leader since 1962. "There’s a low nuclear threshold now that didn’t exist during the Cold War." Nuclear theory is complex and disputable; maybe Putin is right. But many theorists would say he is wrong, that the logic of nuclear warfare means a "limited" nuclear strike is in fact likely to trigger a larger nuclear war — a doomsday scenario in which major American, Russian, and European cities would be targets for attacks many times more powerful than the bombs that leveled Hiroshima and Nagasaki. Even if a nuclear war did somehow remain limited and contained, recent studies suggest that environmental and atmospheric damage would cause a "decade of winter" and mass crop die-outs that could kill up to 1 billion people in a global famine.

### Case

### Defense

**Probability – 0.1% chance of a collision.**

Alexander William **Salter**, **Economics Professor at Texas Tech**, **’16**, “SPACE DEBRIS: A LAW AND ECONOMICS ANALYSIS OF THE ORBITAL COMMONS” 19 STAN. TECH. L. REV. 221 \*numbers replaced with English words

The probability of a collision is currently **low**. Bradley and Wein estimate that the **maximum probability** in LEO of a collision over the lifetime of a spacecraft remains **below one in one thousand**, conditional on continued compliance with NASA’s deorbiting guidelines.3 However, the possibility of a future “snowballing” effect, whereby debris collides with other objects, further congesting orbit space, remains a significant concern.4 Levin and Carroll estimate the average immediate destruction of wealth created by a collision to be approximately $30 million, with an additional $200 million in damages to all currently existing space assets from the debris created by the initial collision.5 The expected value of destroyed wealth because of collisions, currently small because of the low probability of a collision, can quickly become significant if future collisions result in runaway debris growth.

**Time frame – Kessler effect 200 years away.**

Peter **Stubbe**, PhD in law @ Johann Wolfgang Goethe University Frankfurt, **’17**, State Accountability for Space Debris: A Legal Study of Responsibility for Polluting the Space Environment and Liability for Damage Caused by Space Debris, Koninklijke Brill Publishing, ISBN 978-90-04-31407-8, p. 27-31

The prediction of possible scenarios of the future evolution of the debris p o p ulation involves many uncertainties. Long-term forecasting means the prediction of the evolution of the future debris environment in time periods of decades or even centuries. Predictions are based on models84 that work with certain assumptions, and altering these parameters significantly influences the outcomes of the predictions. Assumptions on the future space traffic and on the initial object environment are particularly critical to the results of modeling efforts.85 A well-known pattern for the evolution of the debris population is the so-called Kessler effect’, which assumes that there is a certain collision probability among space objects because many satellites operate in similar orbital regions. These collisions create fragments, and thus additional objects in the respective orbits, which in turn enhances the risk of further collisions. Consequently, the number of objects and collisions increases exponentially and eventually results in the formation of a self-sustaining debris belt around the Earth. While it has long been assumed that such a process of collisional cascading is likely to occur only in a very long-term perspective (meaning a time 1 n of several hundred years),87 a consensus has evolved in recent years that an uncontrolled growth of the debris population in certain altitudes could become reality much sooner.88 In fact, a recent cooperative study undertaken by various space agencies in the scope of i a d c shows that the current l e o debris population is unstable, even if current mitigation measures are applied. The study concludes:

Even with a 90% implementation of the commonly-adopted mitigation measures [...] the l e o debris population is expected to increase by an average of **30% in the next 200 years.** The population growth is primarily driven by catastrophic collisions between 700 and 1000 km altitudes and such collisions are likely to occur every 5 to 9 years.89

#### China cheats by creating domestic laws that contradict agreements

McDevitt 19 [Michael McDevitt is a Senior Fellow at CNA, a Washington DC area non-profit research and analysis company. During his 21 years at CNA he served as a Vice President responsible for strategic analyses, especially in East Asia and the Middle East. He has been involved in US security policy and strategy in the Asia-Pacific for the last 28 years, in both government policy positions and, following his retirement from the US Navy, as an analyst and commentator. He also attended the National War College and spent a year as a Chief of Naval Operations Fellow on the Strategic Study Group at the Naval War College. April 2019. <https://www.uscc.gov/sites/default/files/transcripts/April%2025%2C%202019%20Hearing%20Transcript%20%282%29.pdf>

But there one huge caveat to that statement, which is international law is fine as long as it moves their ball forward on what they hope to achieve. If it doesn't, suddenly, domestic law takes priority, and domestic law coming out of the National People's Congress can be cooked up pretty quickly. And so, they decide which law, which approach they want to use in the South China Sea or East China Sea, whichever one moves the ball most effectively.

And so, one would have to worry about — now this may be a bridge too far but — a Chinese domestic space law. In fact, one may exist. I have no idea if it does or doesn't. But it would counteract any agreements that are either in place or that could be made.

#### Turn - private space exploration is key to solve all of the aff’s impacts. Rumende 21:

Thevnin Rumende {mechanical engineering junior and Community Voices columnist, }, 21 - ("Opinion: Critics are overlooking the technological benefits of the billionaire space race," Shorthorn, 9-14-2021, https://www.theshorthorn.com/opinion/opinion-critics-are-overlooking-the-technological-benefits-of-the-billionaire-space-race/article\_4cd73e2e-1512-11ec-874b-bb7e3009729b.html)//marlborough-wr/

There has been no shortage of opinion surrounding what has been derisively dubbed by some as the “pointless billionaire space race.” Pundits have not hesitated to express their ire toward what they view as a new pet project for billionaires. Despite the controversy that accompanies the uber-wealthy’s interest in the private space industry, this development and its effects deserve to be treated with more nuance. When discussing the topic of billionaires in space, the hatred and distrust toward these individuals often trumps any positive technological advancements their companies have achieved on the path to civilian space flight. Simply labeling their endeavors in commercial space flight “a rich person’s ‘joyride’” undercuts the sheer immensity of safely ferrying a person to and from the edge of space, and in the case of SpaceX, a private space manufacturer, having docked and undocked with the international space station in low-Earth orbit. While viewing the success of the current era of space transportation, one might overlook the fact that of the 355 astronauts who flew aboard NASA’s space shuttles from 1981 to 2011, 14 were killed. Simply put, many things can and have gone wrong when attempting to enter space, and any step taken closer to a safer launch system benefits all of humanity. However, for some people, they view the contest of private space companies as “a tragically wasteful ego contest,” a distraction from more pressing issues such as proliferating climate catastrophes, inequality, lack of health care and insufficient housing. This view is shortsighted as it fails to recognize the key role space is already playing in combating a host of the aforementioned crises. According to the World Economic Forum, space technology is helping end hunger by imaging vast swathes of agricultural land and by helping produce agricultural indexes, along with ensuring people access to clean water through the monitoring of reservoirs via satellite images. Cheaper and more efficient space launch systems mean deploying even more satellites to help better address these problems. The microgravity environment of space could potentially allow the fabrication of human organs using a 3D bioprinter. With the demand for yearly organ transplants dwarfing the supply, manufacturing organs in space would help address the overwhelming needs of medical patients. The most common contention leveled against these “space billionaires” is that the wealth they accumulate through their endeavors will only serve to enrich them, widening the gap between the haves and the have nots. While these concerns are natural, they often overlook technology’s profound ability to democratize knowledge and reshape society for the better. The private space industry has already significantly reduced the capital investment necessary to embark on projects such as internet satellite constellations. Satellite internet providers have long promised the ability to provide secure internet connectivity to the remaining 3.7 billion unconnected people on the earth, but only now is it attainable. With current technology, nearly a third of the human population could access secure financial accounts and the vast library of human knowledge, once restricted to more developed nations, in under a decade. The significance of these two effects alone toward the advancement of humanity, which could be further advanced through private interests in space, would be incalculable. Like the creation of the internet and the opening of the western frontier in the U.S., the impact that the opening of space will have on the course of humanity is unforeseeable. But the impact is sure to be monumental. We shouldn’t let our distaste of certain billionaires cloud our view of the path that lies ahead. Just as the robber barons of yesteryear played a large role in shaping the nation but are now long forgotten, so too will Jeff Bezos, Elon Musk and Sir Richard Branson.

#### No impact & remediation’s not key—Nearly ZERO risk to any given satellite even ASSUMING cascades, Aff can’t solve it, and every other risk to spacecraft outweighs—Their ev makes several flawed assumptions

Wein 9 [Lawrence M. Wein, Professor & Senior Fellow at Stanford’s Center for International Security and Cooperation Jeffrey S. Skoll Professor of Management Science at Stanford University and Senior Fellow at Stanford’s Center for International Security and Cooperation, former DEC Leaders for Manufacturing Professor of Management Science at MIT, and Andrew M. Bradley, PhD-Institute for Computational and Mathematical Engineering at Stanford University, Space debris: Assessing risk and responsibility, Advances in Space Research 43 (2009) 1372–1390]

More importantly, while our numerical results mimic earlier results (Liou and Johnson, 2005; Walker and Martin, 2004) that stressed the importance of postmission deorbiting, we do not necessarily agree with the claim that the only way to prevent future problems is to remove existing large intacts from space (Liou and Johnson, 2006, 2008). The divergence between our views and those in Liou and Johnson (2006, 2008) is perhaps due to the different performance metrics used. The root causes for alarm in Liou and Johnson (2006, 2008) appear to be the growth rate of fragments and the small increase in the rate of catastrophic collisions over the next 200 years (Liou and Johnson, 2008, Fig. 2). However, the great majority of catastrophic collisions in the SOI do not involve operational spacecraft, and are hazardous only in the sense that the fragments generated from such a collision could subsequently damage or destroy operational spacecraft. Therefore, we introduced the notion of the lifetime risk of an operational spacecraft as the primary performance metric. Our model predicts that the lifetime risk is <5x10^-4 [less than .0005%] over the next two centuries, and always stays <10^-3 [less than .001%] than if there is very high (>98%) spacecraft deorbiting compliance. These risks appear to be low relative to the immense cost and considerable technological uncertainty involved in removing large objects from space, are dwarfed by the ~20% historical mission-impacting (but not necessarily mission-ending) failure rate of spacecraft (Frost and Sullivan, 2004), and could be overestimated if improved traffic management techniques lower future collision risks (Johnson, 2004). Hence, the need to bring large objects down from space does not appear to be as clear cut as suggested in Liou and Johnson (2006, 2008). Nonetheless, our model does not incorporate the possibility of intentional catastrophic collisions (ASAT tests, space wars) that could conceivably occur in the future. In addition, Fig. 5 considers only catastrophic collisions, whereas noncatastrophic intact-fragment collisions could easily disable an operational spacecraft. If the operational lifetime risk is modified to include noncatastrophic collisions with fragments >= 10cm, then the sustainable risk rises by ~50%: it increases from 2.19x10^-2 [.0219%] to 3.09x10^-2 in the base case, and increases from 4.91x10^-4 [.000491%] to 7.94x10^-4 in the full compliance case. Moreover, if fragments >= 1 cm (rather than >= 10 cm) are harmful to spacecraft (Johnson, 2004), then we (as well as other researchers) could be underestimating the risk.

In summary, in the absence of the removal of large objects from space, the sustainable lifetime risks in Figs. 3–5 do not appear to be obviously above or below a tolerable level. Even if these risks are deemed acceptable, it is prudent to invest in research and development for space remediation technologies, which is a topic of current study (Proposal for forming an IAA study group, 2000). However, given the optimality of full deorbit compliance from a societal, sustainable perspective, and the sensitivity of sustainable lifetime risk to postmission deorbit compliance, the primary focus for policymakers should be on increasing compliance, which leads us to a discussion of economic instruments that could be used to address this issue.