# 1NC vs Lake Highland HL

### 1NC---FW

#### The role of the ballot is to determine the desirability of a topical advocacy.

#### Resolved with a colon indicates policy action.

Parcher 1 [Jeff; former debate coach at Georgetown; Feb 26, 2001; <https://web.archive.org/web/20020929065555/http://www.ndtceda.com/archives/200102/0790.html>] brett

(1) Pardon me if I turn to a source besides Bill. American Heritage Dictionary: Resolve: 1. To make a firm decision about. 2. To decide or express by formal vote. 3. To separate something into constiutent parts See Syns at \*analyze\* (emphasis in orginal) 4. Find a solution to. See Syns at \*Solve\* (emphasis in original) 5. To dispel: resolve a doubt. - n 1. Frimness of purpose; resolution. 2. A determination or decision.

(2) The very nature of the word "resolution" makes it a question. American Heritage: A course of action determined or decided on. A formal statemnt of a deciion, as by a legislature.

(3) The resolution is obviously a question. Any other conclusion is utterly inconcievable. Why? Context. The debate community empowers a topic committee to write a topic for ALTERNATE side debating. The committee is not a random group of people coming together to "reserve" themselves about some issue. There is context - they are empowered by a community to do something. In their deliberations, the topic community attempts to craft a resolution which can be ANSWERED in either direction. They focus on issues like ground and fairness because they know the resolution will serve as the basis for debate which will be resolved by determining the policy desireablility of that resolution. That's not only what they do, but it's what we REQUIRE them to do. We don't just send the topic committtee somewhere to adopt their own group resolution. It's not the end point of a resolution adopted by a body - it's the prelimanary wording of a resolution sent to others to be answered or decided upon.

(4) Further context: the word resolved is used to emphasis the fact that it's policy debate. Resolved comes from the adoption of resolutions by legislative bodies. A resolution is either adopted or it is not. It's a question before a legislative body. Should this statement be adopted or not.

#### “Appropriation of outer space” is a term of art that refers to the OST, which regulates private, national, and international conduct.

Thornburg 19 [Matthew, Associate Editor for the Michigan Journal of International Law; Vol 40; “Are the Non-appropriation Principle and the Current Regulatory Regime Governing Geostationary Orbit Equitable for All of Earth’s States?” <http://www.mjilonline.org/are-the-non-appropriation-principle-and-the-current-regulatory-regime-governing-geostationary-orbit-equitable-for-all-of-earths-states/>] brett

As the law currently stands, geostationary orbit – a constant orbital position above Earth’s equator – is governed by the OST and is therefore subject to the treaty’s attendant ban on national appropriation. Spaces, or slots, in geostationary orbit[2] are desired because they are exceedingly convenient for communicating with earth. They are highly limited and as a consequence, highly valuable. Moreover, these spaces are allotted on a first-come-first-served basis[3] making them virtually unattainable by less scientifically and economically advanced states[4], or those that are just plain late to the game.

The ban on national appropriation is enumerated in the Second Article of the OST, which states: “Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by other means.”[5] The geostationary orbital position is generally agreed upon by experts[6] as part of “outer space” and consequently, forbidden from appropriation.

#### A practice being unjust entails legal action.

Black’s Law [The Law Dictionary Featuring Black's Law Dictionary Free Online Legal Dictionary 2nd Ed. No Date. <https://thelawdictionary.org/unjust/>] brett

What is UNJUST?

Contrary to right and justice, or to the enjoyment of his rights by another, or to the standards of conduct furnished by the laws.

#### Violation – it’s preemptive – it’s if they defend extra topical offense

#### Prefer:

#### Vagueness---debates inevitably involve the AFF defending something, but only our interp lets them to clearly define that from the start. Their model leads to late-breaking debates that destroy ground, for example we won’t know if asteroid mining or space exploration are offense until the 1AR, which skews neg prep. This destroys neg ground because only being able to link offense to a clear advocacy enables 2nd and 3rd level testing that fosters in depth information literacy and advocacy skills. Even if they also defend the topic, they are EXTRA T for defending the method which still kills limits.

#### Two impacts:

#### 1] Fairness---we’re both here to win, but in order to both be able to access that goal fairness is required as a rule for the game. Absent fairness, the game cannot function, and we lose our ability to engage in the AFF. That outweighs, as we need to be able to engage to test their claims in the first place.

#### 2] Iterative testing – the process of engaging in research around a predictable topic empirically produces better advocates which turns case because they’re better prepared to defend their positions.

**Iverson ’9** [Joel; 2009; Associate Professor of Communication at the University of Montana, Ph.D in Communication from Arizona State University Relations at the University of Sydney; Debate Central, “Can Cutting Cards Carve into Our Personal Lives: An Analysis of Debate Research on Personal Advocacy,” <https://debate.uvm.edu/dybvigiverson1000.html>] brett

Mitchell (1998) provides a thorough examination of the pedagogical implication for academic debate. Although Mitchell acknowledges that debate provides preparation for participation in democracy, limiting debate to a laboratory where students practice their skill for future participation is criticized. Mitchell contends:

For students and teachers of argumentation, the heightened salience of this question should signal the danger that critical thinking and oral advocacy skills alone may not be sufficient for citizens to assert their voices in public deliberation. (p. 45)

Mitchell contends that the laboratory style setting creates barriers to other spheres, creates a "sense of detachment" and causes debaters to see research from the role of spectators. Mitchell further calls for "argumentative agency [which] involves the capacity to contextualize and employ the skills and strategies of argumentative discourse in fields of social action, especially wider spheres of public deliberation" (p. 45). Although we agree with Mitchell that debate can be an even greater instrument of empowerment for students, we are more interested in examining the impact of the intermediary step of research. In each of Mitchell's examples of debaters finding creative avenues for agency, there had to be a motivation to act. It is our contention that the research conducted for competition is a major catalyst to propel their action, change their opinions, and to provide a greater depth of understanding of the issues involved.

The level of research involved in debate creates an in-depth understanding of issues. The level of research conducted during a year of debate is quite extensive. Goodman (1993) references a Chronicle of Higher Education article that estimated "the level and extent of research required of the average college debater for each topic is equivalent to the amount of research required for a Master's Thesis (cited in Mitchell, 1998, p. 55). With this extensive quantity of research, debaters attain a high level of investigation and (presumably) understanding of a topic. As a result of this level of understanding, debaters become knowledgeable citizens who are further empowered to make informed opinions and energized to take action. Research helps to educate students (and coaches) about the state of the world.

Without the guidance of a debate topic, how many students would do in-depth research on female genital mutilation in Africa, or United Nations sanctions on Iraq? The competitive nature of policy debate provides an impetus for students to research the topics that they are going to debate. This in turn fuels students’ awareness of issues that go beyond their front doors. Advocacy flows from this increased awareness. Reading books and articles about the suffering of people thousands of miles away or right in our own communities drives people to become involved in the community at large.

Research has also focused on how debate prepares us for life in the public sphere. Issues that we discuss in debate have found their way onto the national policy stage, and training in intercollegiate debate makes us good public advocates. The public sphere is the arena in which we all must participate to be active citizens. Even after we leave debate, the skills that we have gained should help us to be better advocates and citizens. Research has looked at how debate impacts education (Matlon and Keele 1984), legal training (Parkinson, Gisler and Pelias 1983, Nobles 19850 and behavioral traits (McGlone 1974, Colbert 1994). These works illustrate the impact that public debate has on students as they prepare to enter the public sphere.

The debaters who take active roles such as protesting sanctions were probably not actively engaged in the issue until their research drew them into the topic. Furthermore, the process of intense research for debate may actually change the positions debaters hold. Since debaters typically enter into a topic with only cursory (if any) knowledge of the issue, the research process provides exposure to issues that were previously unknown. Exposure to the literature on a topic can create, reinforce or alter an individual's opinions. Before learning of the School for the America's, having an opinion of the place is impossible. After hearing about the systematic training of torturers and oppressors in a debate round and reading the research, an opinion of the "school" was developed. In this manner, exposure to debate research as the person finding the evidence, hearing it as the opponent in a debate round (or as judge) acts as an initial spark of awareness on an issue. This process of discovery seems to have a similar impact to watching an investigative news report.

Mitchell claimed that debate could be more than it was traditionally seen as, that it could be a catalyst to empower people to act in the social arena. We surmise that there is a step in between the debate and the action. The intermediary step where people are inspired to agency is based on the research that they do. If students are compelled to act, research is a main factor in compelling them to do so. Even if students are not compelled to take direct action, research still changes opinions and attitudes.

Research often compels students to take action in the social arena. Debate topics guide students in a direction that allows them to explore what is going on in the world. Last year the college policy debate topic was,

Resolved: That the United States Federal Government should adopt a policy of constructive engagement, including the immediate removal of all or nearly all economic sanctions, with the government(s) of one or more of the following nation-states: Cuba, Iran, Iraq, Syria, North Korea.

This topic spurred quite a bit of activism on the college debate circuit. Many students become actively involved in protesting for the removal of sanctions from at least one of the topic countries. The college listserve was used to rally people in support ofvarious movements to remove sanctions on both Iraq and Cuba. These messages were posted after the research on the topic began. While this topic did not lend itself to activism beyond rallying the government, other topics have allowed students to take their beliefs outside of the laboratory and into action.

In addition to creating awareness, the research process can also reinforce or alter opinions. By discovering new information in the research process, people can question their current assumptions and perhaps formulate a more informed opinion. One example comes from a summer debate class for children of Migrant workers in North Dakota (Iverson, 1999). The Junior High aged students chose to debate the adoption of Spanish as an official language in the U.S. Many students expressed their concern that they could not argue effectively against the proposed change because it was a "truism." They were wholly in favor of Spanish as an official language. After researching the topic throughout their six week course, many realized much more was involved in adopting an official language and that they did not "speak 'pure' Spanish or English, but speak a unique dialect and hybrid" (Iverson, p. 3). At the end of the class many students became opposed to adopting Spanish as an official language, but found other ways Spanish should be integrated into American culture. Without research, these students would have maintained their opinions and not enhanced their knowledge of the issue. The students who maintained support of Spanish as an official language were better informed and thus also more capable of articulating support for their beliefs.

The examples of debate and research impacting the opinions and actions of debaters indicate the strong potential for a direct relationship between debate research and personal advocacy. However, the debate community has not created a new sea of activists immersing this planet in waves of protest and political action. The level of influence debater search has on people needs further exploration. Also, the process of research needs to be more fully explored in order to understand if and why researching for the competitive activity of debate generates more interest than research for other purposes such as classroom projects.

Since parliamentary debate does not involve research into a single topic, it can provide an important reference point for examining the impact of research in other forms of debate. Based upon limited conversations with competitors and coaches as well as some direct coaching and judging experience in parliamentary debate, parliamentary forms of debate has not seen an increase in activism on the part of debaters in the United States. Although some coaches require research in order to find examples and to stay updated on current events, the basic principle of this research is to have a commonsense level of understanding(Venette, 1998). As the NPDA website explains, "the reader is encouraged to be well-read in current events, as well as history, philosophy, etc. Remember: the realm of knowledge is that of a 'well-read college student'" (NPDA Homepage,<http://www.bethel.edu/Majors/Communication/npda/faq2.html>). The focus of research is breadth, not depth. In fact, in-depth research into one topic for parliamentary debate would seem to be counterproductive. Every round has a different resolution and for APDA, at least, those resolutions are generally written so they are open to a wide array of case examples, So, developing too narrow of a focus could be competitively fatal. However, research is apparently increasing for parliamentary teams as reports of "stock cases" used by teams for numerous rounds have recently appeared. One coach did state that a perceived "stock case" by one team pushed his debaters to research the topic of AIDS in Africa in order to be equally knowledgeable in that case. Interestingly, the coach also stated that some of their research in preparation for parliamentary debate was affecting the opinions and attitudes of the debaters on the team.

Not all debate research appears to generate personal advocacy and challenge peoples' assumptions. Debaters must switch sides, so they must inevitably debate against various cases. While this may seem to be inconsistent with advocacy, supporting and researching both sides of an argument actually created stronger advocates. Not only did debaters learn both sides of an argument, so that they could defend their positions against attack, they also learned the nuances of each position. Learning and the intricate nature of various policy proposals helps debaters to strengthen their own stance on issues.

### 1NC – DA

#### Mining is now – multiple companies are competing in mineral exploitation to obtain rare earth metals.

Gilbert 21 [Alex Gilbert is a complex systems researcher and a PhD student in space resources at the Colorado School of Mines. Milken Institute, “Mining in Space Is Coming”; <https://www.milkenreview.org/articles/mining-in-space-is-coming>] Kelvin

Space exploration is back. after decades of disappointment, a combination of better technology, falling costs and a rush of competitive energy from the private sector has put space travel front and center. indeed, many analysts (even some with their feet on the ground) believe that commercial developments in the space industry may be on the cusp of starting the largest resource rush in history: mining on the Moon, Mars and asteroids.

While this may sound fantastical, some baby steps toward the goal have already been taken. Last year, NASA awarded contracts to four companies to extract small amounts of lunar regolith by 2024, effectively beginning the era of commercial space mining. Whether this proves to be the dawn of a gigantic adjunct to mining on earth — and more immediately, a key to unlocking cost-effective space travel — will turn on the answers to a host of questions ranging from what resources can be efficiently.

As every fan of science fiction knows, the resources of the solar system appear virtually unlimited compared to those on Earth. There are whole other planets, dozens of moons, thousands of massive asteroids and millions of small ones that doubtless contain humungous quantities of materials that are scarce and very valuable (back on Earth). Visionaries including Jeff Bezos imagine heavy industry moving to space and Earth becoming a residential area. However, as entrepreneurs look to harness the riches beyond the atmosphere, access to space resources remains tangled in the realities of economics and governance.

Start with the fact that space belongs to no country, complicating traditional methods of resource allocation, property rights and trade. With limited demand for materials in space itself and the need for huge amounts of energy to return materials to Earth, creating a viable industry will turn on major advances in technology, finance and business models.

That said, there’s no grass growing under potential pioneers’ feet. Potential economic, scientific and even security benefits underlie an emerging geopolitical competition to pursue space mining. The United States is rapidly emerging as a front-runner, in part due to its ambitious Artemis Program to lead a multinational consortium back to the Moon. But it is also a leader in creating a legal infrastructure for mineral exploitation. The United States has adopted the world’s first space resources law, recognizing the property rights of private companies and individuals to materials gathered in space.

However, the United States is hardly alone. Luxembourg and the United Arab Emirates (you read those right) are racing to codify space-resources laws of their own, hoping to attract investment to their entrepot nations with business-friendly legal frameworks. China reportedly views space-resource development as a national priority, part of a strategy to challenge U.S. economic and security primacy in space. Meanwhile, Russia, Japan, India and the European Space Agency all harbor space-mining ambitions of their own. Governing these emerging interests is an outdated treaty framework from the Cold War. Sooner rather than later, we’ll need new agreements to facilitate private investment and ensure international cooperation.

What’s Out There

Back up for a moment. For the record, space is already being heavily exploited, because space resources include non-material assets such as orbital locations and abundant sunlight that enable satellites to provide services to Earth. Indeed, satellite-based telecommunications and global positioning systems have become indispensable infrastructure underpinning the modern economy. Mining space for materials, of course, is another matter.

In the past several decades, planetary science has confirmed what has long been suspected: celestial bodies are potential sources for dozens of natural materials that, in the right time and place, are incredibly valuable. Of these, water may be the most attractive in the near-term, because — with assistance from solar energy or nuclear fission — H2O can be split into hydrogen and oxygen to make rocket propellant, facilitating in-space refueling. So-called “rare earth” metals are also potential targets of asteroid miners intending to service Earth markets. Consisting of 17 elements, including lanthanum, neodymium, and yttrium, these critical materials (most of which are today mined in China at great environmental cost) are required for electronics. And they loom as bottlenecks in making the transition from fossil fuels to renewables backed up by battery storage.

The Moon is a prime space mining target. Boosted by NASA’s mining solicitation, it is likely the first location for commercial mining. The Moon has several advantages. It is relatively close, requiring a journey of only several days by rocket and creating communication lags of only a couple seconds — a delay small enough to allow remote operation of robots from Earth. Its low gravity implies that relatively little energy expenditure will be needed to deliver mined resources to Earth orbit.

The Moon may look parched — and by comparison to Earth, it is. But recent probes have confirmed substantial amounts of water ice lurking in permanently shadowed craters at the lunar poles. Further, it seems that solar winds have implanted significant deposits of helium-3 (a light stable isotope of helium) across the equatorial regions of the Moon. Helium-3 is a potential fuel source for second and third-generation fusion reactors that one hopes will be in service later in the century. The isotope is packed with energy (admittedly hard to unleash in a controlled manner) that might augment sunlight as a source of clean, safe energy on Earth or to power fast spaceships in this century. Between its water and helium-3 deposits, the Moon could be the resource stepping-stone for further solar system exploration.

Asteroids are another near-term mining target. There are all sorts of space rocks hurtling through the solar system, with varying amounts of water, rare earth metals and other materials on board. The asteroid belt between the orbits of Mars and Jupiter contains most of them, many of which are greater than a kilometer in diameter. Although the potential water and mineral wealth of the asteroid belt is vast, the long distance from Earth and requisite travel times and energy consumption rule them out as targets in the near term.

Even the surface of celestial bodies pose a challenge to mining machinery since they consist of unconsolidated rocky materials called regolith instead of more familiar soil.

Wannabe asteroid miners will thus be looking at smaller near-Earth asteroids. While they are much further away than the Moon, many of them could be reached using less energy — and some are even small enough to make it technically possible to tow them to Earth orbit for mining.

Space mining may be essential to crewed exploration missions to Mars. Given the distance and relatively high gravity of Mars (twice that of the Moon), extraction and export of minerals to Earth seems highly unlikely. Rather, most resource extraction on Mars will focus on providing materials to supply exploration missions, refuel spacecraft and enable settlement.

Technology Is the Difference

The prospects for space mining are being driven by technological advances across the space industry. The rise of reusable rocket components and the now-widespread use of off-the-shelf parts are lowering both launch and operations costs. Once limited to government contract missions and the delivery of telecom satellites to orbit, private firms are now emerging as leaders in developing “NewSpace” activities — a catch-all term for endeavors including orbital tourism, orbital manufacturing and mini-satellites providing specialized services. The space sector, with a market capitalization of $400 billion, could grow to as much as $1 trillion by 2040 as private investment soars.

But despite the high-profile commercial advances, governments still call the shots on the leading edge of space resource technologies. The United States extracted the first extraterrestrial materials in space from the Moon during the Apollo missions, followed by the Soviet Union’s recoveries from crewless Luna missions. President Biden recently borrowed one of the Apollo lunar rocks for display in the Oval Office, highlighting the awe that deep space can still summon.

For the time being, scientific samples remain the goal of mining. Last October, NASA’s OSIRIS-REx mission — due to return to Earth in 2023 — collected a small amount of material from the asteroid Bennu. In December, Japan returned a sample of the asteroid Ryugu with the Hayabusa2 spacecraft. And several weeks later, China’s Chang’e 5 mission returned the first lunar samples since the 1970s.

Sample collection is accelerating, with recent missions targeting Mars. Japan is planning to visit the two moons of Mars and extract a sample from one. NASA’s robotic Perseverance rover will collect and cache drilled samples on Mars that could later be returned to Earth. Perseverance also carries gear for the unique MOXIE experiment on Mars — an attempt to produce oxygen on the planet with technologies that could eventually extract oxygen for astronauts to breath and refuel spacecraft.It’s about as wide as the Eiffel Tower is tall and it could be where we obtain the elements needed to power bases on the moon, Mars or in orbit one day.

#### Space mining is key to sustain global resources -- otherwise, resource wars.

MacWhorter 16 [Kevin; J.D. Candidate, William & Mary Law School, "Sustainable Mining: Incentivizing Asteroid Mining in the Name of Environmentalism", William & Mary Environmental Law and Policy Review, Vol 40, Issue 2, Article 11, <https://scholarship.law.wm.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1653&context=wmelpr>] brett

A. Rare Element Mining on Earth

In the next sixty years, scientists predict that certain elements crucial to modern industry such as platinum, zinc, copper, phosphorous, lead, gold, and indium could be exhausted on Earth. 12 Many of these have no synthetic alternative, unlike chemical elements such as oil or diamonds.13 Liquid-crystal display (LCD) televisions, cellphones, and laptops are among the various consumer technologies that use precious metals.14Further, green technologies including wind turbines, solar panels, and catalytic converters require these rare elements. 15 As demand rises for both types of technologies, and as reserves of rare metals fall, prices skyrocket.16 Demand for nonrenewable resources creates conflict, and consumerism in rich countries results in harsh labor treatment for poorer countries.17

In general, the mining industry is extremely destructive to Earth’s environment.18 In fact, depending on the method employed, mining can destroy entire ecosystems by polluting water sources and contributing to deforestation.19 It is by its nature an unsustainable practice, because it involves the extraction of a finite and non-renewable resource.20 Moreover, by extracting tiny amounts of metals from relatively large quantities of ore, the mining industry contributes the largest portion of solid wastes in the world.21 The Environmental Protection Agency (EPA) describes the industry as the source of more toxic and hazardous waste than any other industrial sector [in the United States], costing billions of dollars to address the public health and environmental threats to communities. 22 Poor regulations and oxymoronic corporate definitions of sustainability, however, make it unclear as to just how much waste the industry actually produces.23

Platinum provides an excellent case study of the issue, because it is an extremely rare and expensive metal—an ore expected to exist in vast quantities in asteroids.24 Further, production of platinum has increased sharply in the past sixty years in order to keep up with growing demand for use in new technologies.25 In fact, despite their high costs, platinum group metals are so useful that [one] of [four] industrial goods on Earth require them in production. 26 Scholars do not expect demand to slow any time soon.27 Among other technologies, industries use platinum in products such as catalytic converters, jewelry production, various catalysts for chemical processing, and hydrogen fuel cells.28 While there is no consensus on how far the Earth’s reserves of platinum will take humanity, many scientists agree that platinum ore reserves will deplete in a relatively short amount of time.29

With the rate of mining at an all-time high,30 it is increasingly clear that historical patterns of mineral resources and development cannot simply be assumed to continue unaltered into the future. 31 The platinum mining industry, however, has a strong incentive to increase its rate of extraction as profits grow with the rate of demand. Without any alternative, this destructive practice will continue into the future.32

So-called platinum-group metal (PGM) ores are mined through underground or open cut techniques.33 Due to these practices, all but a very small fraction of the mined platinum ore is disposed of as solid waste.34 The environmental consequences of platinum production are thus quite significant, but like the mining industry in general, the amount of waste is typically under-reported.35

While this is due to high production levels at the moment, those levels will only increase given the estimated future demand of platinum.36 In spite of the negative consequences, mining continues unabated because it is economically important to many areas.37 The future environmental costs provide a major challenge in creating a sustainable system. Relegating at least some mining companies to near-Earth asteroids would reduce the negative effects of future mining levels on Earth. The economic benefits of mining need not be sacrificed for the sake of the environment.38

#### Terrestrial resource scarcity goes nuclear---we outweigh on timeframe, just the prospect of shortages triggers escalation.

Klare 13 [Michael T., The Nation’s defense correspondent, is professor emeritus of peace and world-security studies at Hampshire College and senior visiting fellow at the Arms Control Association in Washington, D.C. His newest book, All Hell Breaking Loose: The Pentagon’s Perspective on Climate Change, will be published this fall. 2013. “How Resource Scarcity and Climate Change Could Produce a Global Explosion,” <https://www.thenation.com/article/archive/how-resource-scarcity-and-climate-change-could-produce-global-explosion/>] brett

Brace yourself. You may not be able to tell yet, but according to global experts and the US intelligence community, the earth is already shifting under you. Whether you know it or not, you’re on a new planet, a resource-shock world of a sort humanity has never before experienced.

Two nightmare scenarios—a global scarcity of vital resources and the onset of extreme climate change—are already beginning to converge and in the coming decades are likely to produce a tidal wave of unrest, rebellion, competition and conflict. Just what this tsunami of disaster will look like may, as yet, be hard to discern, but experts warn of “water wars” over contested river systems, global food riots sparked by soaring prices for life’s basics, mass migrations of climate refugees (with resulting anti-migrant violence) and the breakdown of social order or the collapse of states. At first, such mayhem is likely to arise largely in Africa, Central Asia and other areas of the underdeveloped South, but in time, all regions of the planet will be affected.

To appreciate the power of this encroaching catastrophe, it’s necessary to examine each of the forces that are combining to produce this future cataclysm.

Resource Shortages and Resource Wars

Start with one simple given: the prospect of future scarcities of vital natural resources, including energy, water, land, food and critical minerals. This in itself would guarantee social unrest, geopolitical friction and war.

It is important to note that absolute scarcity doesn’t have to be on the horizon in any given resource category for this scenario to kick in. A lack of adequate supplies to meet the needs of a growing, ever more urbanized and industrialized global population is enough. Given the wave of extinctions that scientists are recording, some resources—particular species of fish, animals and trees, for example—will become less abundant in the decades to come, and may even disappear altogether. But key materials for modern civilization like oil, uranium and copper will simply prove harder and more costly to acquire, leading to supply bottlenecks and periodic shortages.

Oil—the single most important commodity in the international economy—provides an apt example. Although global oil supplies may actually grow in the coming decades, many experts doubt that they can be expanded sufficiently to meet the needs of a rising global middle class that is, for instance, expected to buy millions of new cars in the near future. In its 2011 World Energy Outlook, the International Energy Agency claimed that an anticipated global oil demand of 104 million barrels per day in 2035 will be satisfied. This, the report suggested, would be thanks in large part to additional supplies of “unconventional oil” (Canadian tar sands, shale oil and so on), as well as 55 million barrels of new oil from fields “yet to be found” and “yet to be developed.”

However, many analysts scoff at this optimistic assessment, arguing that rising production costs (for energy that will be ever more difficult and costly to extract), environmental opposition, warfare, corruption and other impediments will make it extremely difficult to achieve increases of this magnitude. In other words, even if production manages for a time to top the 2010 level of 87 million barrels per day, the goal of 104 million barrels will never be reached and the world’s major consumers will face virtual, if not absolute, scarcity.

Water provides another potent example. On an annual basis, the supply of drinking water provided by natural precipitation remains more or less constant: about 40,000 cubic kilometers. But much of this precipitation lands on Greenland, Antarctica, Siberia and inner Amazonia where there are very few people, so the supply available to major concentrations of humanity is often surprisingly limited. In many regions with high population levels, water supplies are already relatively sparse. This is especially true of North Africa, Central Asia and the Middle East, where the demand for water continues to grow as a result of rising populations, urbanization and the emergence of new water-intensive industries. The result, even when the supply remains constant, is an environment of increasing scarcity.

Wherever you look, the picture is roughly the same: supplies of critical resources may be rising or falling, but rarely do they appear to be outpacing demand, producing a sense of widespread and systemic scarcity. However generated, a perception of scarcity—or imminent scarcity—regularly leads to anxiety, resentment, hostility and contentiousness. This pattern is very well understood, and has been evident throughout human history.

In his book Constant Battles, for example, Steven LeBlanc, director of collections for Harvard’s Peabody Museum of Archaeology and Ethnology, notes that many ancient civilizations experienced higher levels of warfare when faced with resource shortages brought about by population growth, crop failures or persistent drought. Jared Diamond, author of the bestseller Collapse, has detected a similar pattern in Mayan civilization and the Anasazi culture of New Mexico’s Chaco Canyon. More recently, concern over adequate food for the home population was a significant factor in Japan’s invasion of Manchuria in 1931 and Germany’s invasions of Poland in 1939 and the Soviet Union in 1941, according to Lizzie Collingham, author of The Taste of War.

Although the global supply of most basic commodities has grown enormously since the end of World War II, analysts see the persistence of resource-related conflict in areas where materials remain scarce or there is anxiety about the future reliability of supplies. Many experts believe, for example, that the fighting in Darfur and other war-ravaged areas of North Africa has been driven, at least in part, by competition among desert tribes for access to scarce water supplies, exacerbated in some cases by rising population levels.

“In Darfur,” says a 2009 report from the UN Environment Programme on the role of natural resources in the conflict, “recurrent drought, increasing demographic pressures, and political marginalization are among the forces that have pushed the region into a spiral of lawlessness and violence that has led to 300,000 deaths and the displacement of more than two million people since 2003.”

Anxiety over future supplies is often also a factor in conflicts that break out over access to oil or control of contested undersea reserves of oil and natural gas. In 1979, for instance, when the Islamic revolution in Iran overthrew the Shah and the Soviets invaded Afghanistan, Washington began to fear that someday it might be denied access to Persian Gulf oil. At that point, President Jimmy Carter promptly announced what came to be called the Carter Doctrine. In his 1980 State of the Union Address, Carter affirmed that any move to impede the flow of oil from the Gulf would be viewed as a threat to America’s “vital interests” and would be repelled by “any means necessary, including military force.”

In 1990, this principle was invoked by President George H.W. Bush to justify intervention in the first Persian Gulf War, just as his son would use it, in part, to justify the 2003 invasion of Iraq. Today, it remains the basis for US plans to employ force to stop the Iranians from closing the Strait of Hormuz, the strategic waterway connecting the Persian Gulf to the Indian Ocean through which about 35 percent of the world’s seaborne oil commerce passes.

Recently, a set of resource conflicts have been rising toward the boiling point between China and its neighbors in Southeast Asia when it comes to control of offshore oil and gas reserves in the South China Sea. Although the resulting naval clashes have yet to result in a loss of life, a strong possibility of military escalation exists. A similar situation has also arisen in the East China Sea, where China and Japan are jousting for control over similarly valuable undersea reserves. Meanwhile, in the South Atlantic Ocean, Argentina and Britain are once again squabbling over the Falkland Islands (called Las Malvinas by the Argentinians) because oil has been discovered in surrounding waters.

By all accounts, resource-driven potential conflicts like these will only multiply in the years ahead as demand rises, supplies dwindle and more of what remains will be found in disputed areas. In a 2012 study titled Resources Futures, the respected British think-tank Chatham House expressed particular concern about possible resource wars over water, especially in areas like the Nile and Jordan River basins where several groups or countries must share the same river for the majority of their water supplies and few possess the wherewithal to develop alternatives. “Against this backdrop of tight supplies and competition, issues related to water rights, prices, and pollution are becoming contentious,” the report noted. “In areas with limited capacity to govern shared resources, balance competing demands, and mobilize new investments, tensions over water may erupt into more open confrontations.”

### 1NC – CP

#### CP Text – The appropriation of outer space by private entities is unjust except for space based solar power.

#### Space based solar power is coming now – but it depends on private actors.

Kaplan 21 [Spencer Kaplan, 7-26-2021, "Op-ed," SpaceNews, <https://spacenews.com/op-ed-its-time-to-seriously-consider-space-based-solar-power/> [accessed 2-7-22] lydia

Although space-based solar power (SBSP) sounds like science fiction, scientists and engineers have explored developing the futuristic technology for decades but repeatedly came to the same [conclusion](https://www.nasa.gov/pdf/716070main_Mankins_2011_PhI_SPS_Alpha.pdf): SBSP is likely technologically possible but for it to be feasible, launch costs will have to come down considerably. Now that companies like SpaceX, Blue Origin, and Rocket Lab have demonstrated re-use capabilities and launch costs are plummeting, it is time to think seriously and boldly about the development of SBSP. It is difficult to overstate the benefits of SBSP. For one, it could eventually provide inexhaustible clean energy to civilians because SBSP produces no harmful byproducts and uses solar radiation as its fuel. The United States could also use SBSP to create a dynamic national energy system modeled after the Strategic Petroleum Reserve. If the United States had a national SBSP constellation when Texas experienced widespread outages in February, the federal government could have supplied emergency power to civilians instantly. Scientists and engineers have even [proposed](https://www.nasa.gov/pdf/716070main_Mankins_2011_PhI_SPS_Alpha.pdf) using SBSP to power lunar exploration and resource extraction operations in the moon’s permanently shaded regions (PSRs), where traditional solar power would be impossible to utilize. SBSP has enormous military uses as well. The military [could use](https://www.nasa.gov/pdf/716070main_Mankins_2011_PhI_SPS_Alpha.pdf) SBSP to power remote bases instead of using dangerous fuel convoys that cost up to hundreds of dollars per gallon. SBSP could also theoretically be used to power unmanned aerial vehicles (UAVs), allowing them to stay in the air until their components fail. Removing energy as a limiting factor in military operations stands to radically change conventional military doctrine. In recognition of the vast potential of SBSP, nations around the world have begun heavily investing in the potentially transformative technology. Japan [enacted](https://www.nasa.gov/pdf/716070main_Mankins_2011_PhI_SPS_Alpha.pdf) legislation in 2009 that requires its government to research SBSP and plans to build a 1 GW system in the 2030s. The European Union and India have also [begun](https://www.esa.int/Enabling_Support/Preparing_for_the_Future/Discovery_and_Preparation/Space-based_solar_power_seeking_ideas_to_make_it_a_reality) [considering](https://www.newindianexpress.com/states/karnataka/2018/jul/08/india-needs-to-create-solar-power-satellite-indian-space-research-organisation-1840117.html) SBSP as a potential power system for the future. No country, though, has approached China’s interest and level of investment. China has[built](https://www.uscc.gov/sites/default/files/Namrata%20Goswami%20USCC%2025%20April.pdf) the world’s first SBSP base plant and plans to build a 100 kW satellite in LEO by 2025, a 1 mW satellite in GEO by 2035, and a full, commercial satellite in 2050. Since SBSP could be a transformative technology, it is reasonable to ask why the United States is not investing heavily in SBSP. In fairness, the United States has launched a few research projects like the Naval Research Laboratory’s (NRL)[Lectenna](https://www.nrl.navy.mil/Careers/STEM/LEctenna-Challenge/), [Photovoltaic Radio-frequency Antenna Module](https://www.nrl.navy.mil/Careers/STEM/LEctenna-Challenge/) (PRAM), and [Power Transmitted Over Laser](https://www.nrl.navy.mil/Media/News/Article/2504007/researchers-transmit-energy-with-laser-in-historic-power-beaming-demonstration/) (PTROL) experiments. The Department of Defense also launched a 100 million dollar partnership with Northrop Grumman on [Space Solar Power Incremental Demonstrations and Research](https://afresearchlab.com/technology/successstories/space-power-beaming/) (SSPIDR), which aims to launch an SBSP demonstration spacecraft called Arachne in 2024. Still, though, the United States lacks a clear plan for SBSP and is dangerously at risk of falling behind its competitors. To position itself well for the future, the United States should begin treating space-based solar power like the groundbreaking technology that it could be. The government could start by naming a point organization to coordinate and lead SBSP research. Naming a lead organization will give SBSP a congressional “cheerleader” to attract federal funding while also clarifying domestic and international regulatory responsibilities. The United States should also engage the private sector by subsidizing research and development of SBSP. As it stands, SBSP is likely viewed as too risky for robust private investment, but if the government shouldered some of the cost, as it does with other forms of green energy, the private sector might be more willing to develop SBSP capabilities.

#### SSP has net 0 emissions with no pollution

Esther **Katete, 21** (Esther Katete, Is Space-Based Solar Power Our Future? (2022), No Publication, https://www.greenmatch.co.uk/blog/2020/02/space-based-solar-power, 12-17-2021)//iLake-💣🍔

According to the [National Space Society](https://space.nss.org/space-solar-power/), space-based solar power has the potential to dwarf all the other sources of energy combined. They argue that space-based solar power can provide large quantities of energy with very little negative environmental impact. It can also solve our current energy and greenhouse gas emissions problems. The infographic below highlights information about space-based solar power, current related trends, and what different countries are doing in terms of research and funding. Current Global Energy Consumption and Trends The world’s energy consumption is only growing. According to a report by the University of Oxford’s Our World in Data, on the global primary energy consumption, the current world consumption is over 160,000 TWh annually. Solar energy contributes only 585 TWh. Although there is an increase in renewable energy solutions, investments, and usage, oil, coal, and gas still generate more than 80% of the global energy that is consumed - with solar energy generating less than 1%. Between 2004 and 2015, investments in renewable energy increased by 600% from £36.2 billion (US$46.7 billion) to £220.6 billion (US$284.8 billion). Current predictions indicate that the world population will reach [9.7 billion by 2050](https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html). With the increase in population, the world energy consumption is also predicted to grow by 50% by 2050. In addition, climate change impacts are accelerating. Although we generate a big percentage of the world energy from fossil fuels, fossil fuels contribute significantly to the increase of climate change. Comparatively, solar energy is the [safest source of energy](https://ourworldindata.org/uploads/2020/02/Safest-source-of-energy.png) today - though it still only contributes a small percentage of the global energy production. The death rates from solar production are 1,230 times lower than coal, and it has one of the lowest CO2 emissions, at 5g CO2 eq per kWh. Why Space-Based Solar Power? Space-based solar power has several benefits; unlike solar panels on our roofs that can only generate electricity during the day, space-based solar power can generate continuous electricity, 24 hours a day, 99% of the year. This is because, unlike Earth, the space environment does not have night and day, and the satellites are in the Earth's shadow for only a maximum of 72 minutes per night. Space-based solar panels can generate 2,000 gigawatts of power constantly. This is 40 times more energy than a solar panel would generate on Earth annually. This is also several folds higher than the [efficiency of solar panels](https://www.greenmatch.co.uk/blog/2014/11/how-efficient-are-solar-panels) today. What’s more, is that space-based solar power would generate [0% greenhouse gas emissions](https://space.nss.org/space-solar-power/) unlike other alternatives energy like nuclear, coal, oil, gas, and ethanol. The current source of energy that generates the lowest CO2 is nuclear power, which generates CO2 of 5g CO2 eq per kWh. Space-based solar power generates almost 0% hazardous waste to our environment compared to nuclear power.

#### It solves existential warming.

Ravisetti 21 [Monisha Ravisetti, 11-8-2021, "Harvesting energy with space solar panels could power the Earth 24/7," CNET, <https://www.cnet.com/news/harvesting-energy-with-space-solar-panels-could-power-the-earth-247/> [accessed 2-8-22] lydia

But there's a caveat to this wonderful power source. Solar panels can't collect energy at night. To work at peak efficiency, they need as much sunlight as possible. So to maximize these sun catchers' performance, researchers are toying with a plan to send them to a place where the sun never sets: outer space.

Theoretically, if a bunch of solar panels were blasted into orbit, they'd soak up the sun even on the foggiest days and the darkest nights, storing an enormous amount of power. If that power were wirelessly beamed down to Earth, our planet could breathe in renewable clean energy, 24/7. That would significantly reduce our carbon footprint. Against the backdrop of a worsening climate crisis, the success of space-based solar power could be more important than ever. The state of the climate is in the spotlight right now as world leaders gather in Glasgow, Scotland, for the COP26 summit, which has been called [the "world's best last chance" to get the crisis under control](https://www.cnet.com/news/cop26-kicks-off-what-is-it-and-why-is-it-the-worlds-best-last-chance-for-climate-action-glasgow-climate-change/). [CNET Science](https://www.cnet.com/topics/science/) is highlighting a few futuristic strategies intended to aid countries in cutting back on human-generated carbon emissions. Next-generation tech like space-based solar power can't solve our climate problems -- we still need to rapidly decarbonize our energy systems -- but green innovation could help achieve the goals of the Paris Agreement: Limit global warming to well below 2 degrees Celsius (3.6 degrees Fahrenheit) by the end of the century.  An unlimited supply of renewable energy from the sun might help us do that. From science fiction to fact For decades, space solar power has lived in the minds of science fiction lovers and scientists alike. In the early 1900s, [Russian scientist-mathematician Konstantin Tsiolkovsky](https://www.esa.int/Science_Exploration/Human_and_Robotic_Exploration/Exploration/Konstantin_Tsiolkovsky) was steadily churning out a stream of futuristic designs envisioning human tech beyond Earth. He's responsible for conjuring things like space elevators, steerable rockets and, you guessed it, [space solar power](https://go.gale.com/ps/i.do?id=GALE%7CA62793333&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=03623416&p=AONE&sw=w&userGroupName=anon%7Ed5adf45d). Since Bell Labs invented the [first concrete "solar panel" in the '50s](https://www.smithsonianmag.com/sponsored/brief-history-solar-panels-180972006/), international scientists have been working to make  Tsiolkovsky's sci-fi fantasy a reality. They include [Japanese researchers](https://nextrendsasia.org/japan-pioneer-of-transferring-solar-energy-from-space-to-earth/#:~:text=Konstantin%20Tsiolkovsky%2C%20commonly%20known%20to,the%20%E2%80%9Cconquest%20of%20planets%E2%80%9D.), the [US military](https://www.space.com/x-37b-space-plane-solar-power-beaming) and a team from the California Institute of Technology [spearheading the Space Solar Power Project](https://www.spacesolar.caltech.edu/).  Space solar power "was investigated extensively in the late 1960s and the 1970s, sort of in the heyday of the Apollo program," said Michael Kelzenberg, senior research scientist on the project.  Unfortunately, due to the materials' weight and bulk, the era's technology wasn't advanced enough to cost-effectively achieve the feat. It would've been exceptionally difficult to send classic solar panels to space via a rocket without breaking the bank. "The distinctively unique and defining feature of the Caltech approach is a focus on reducing the component mass by 10 to 100 times," said Harry Atwater, the project's principal investigator. "This is essential to reducing both the manufacturing and the launch costs to make space solar power economical."

## Case

### 1NC – Framing

#### Extinction outweighs

Baum 16 [Seth, @ Global Catastrophic Risk Institute, In “The Ethics of Space Exploration”, ed. James S.J. Schwartz & Tony Milligan, Springer, 2016, pages 109-123. This version 29 July 2016. <https://sethbaum.com/ac/2016_SpaceEthics.pdf>] brett

A basic conclusion of this paper is that consequentialists should pay attention to outer space. This is because outer space can be the location of immense consequences (via space colonization) and because outer space scenarios can force us to rethink our consequentialist ethics (via ETI encounter).

Attention to outer space prompts us to recognize the big picture. This holds for consequentialist ethics as much as it does for anything else. Only by thinking through the possibilities of outer space can we understand how our lives could matter in the grand scheme of things. And the fact of the matter is that our lives can matter immensely. We can set the pieces in motion for an immense cosmic civilization. We can help prevent civilization-ending global catastrophe so as to enable future space colonization. And we can determine whether or not to try messaging to ETI.

Should we do these things? Answering this all-important question requires ethics. Therefore, just as consequentialists should pay attention to outer space, so too should outer space analysts pay attention to consequentialism, and indeed to ethics in general. Defensible forms of consequentialism will generally conclude that (1) humanity today should focus on avoiding global catastrophe, (2) space colonization should proceed with caution, but ultimately should proceed at immense scale, and (3) high-power/long-duration METI should not be conducted until more effort is put to assessing whether the consequences are likely to be good.

The ethical arguments and empirical analyses in this paper are quite brief and are not the final word on the subject. I have said little in defense of consequentialism and my preferred form of it. The analyses of space colonization and ETI encounter are likewise at best only approximate and leaving much for future work. Some of it is due to space constraints in this paper, but much of it is due to the fact that the research simply has not yet been performed. Outer space consequentialism could make for a fruitful line of inquiry.

The merits of this line of inquiry are diminished by the conclusion to focus on avoiding global catastrophe. Any global catastrophe would preclude the possibility of future research on all topics, including outer space consequentialism. Likewise, any hopes of resolving the ethical dilemmas and empirical uncertainties depend on us surviving long enough to do the research. An argument can thus be made against any work on outer space in favor of work on the global catastrophic risks. My own view is that work on outer space should be pursued mainly to the extent that it is instrumentally valuable towards reducing the global catastrophic risks. To that end it can be quite instrumentally valuable. Outer space can offer great motivation due to its immense opportunities, and it can be deeply inspirational due to its beauty and wonder and the big-picture perspective it offers. While attention to outer space should not distract humanity from the urgent threats that it faces, some attention is very much worthwhile.

### 1NC -- Solvency

#### Use specificity framing -- only evaluate the impacts they solve for.

O’Connor ’8 [Mike; 2008; Senior Legal Research Fellow, Meese Center for Legal and Judicial Studies, Institute for Constitutional Government; Contemporary Pragmatism, “The Limits of Liberalism: Pragmatism, Democracy and Capitalism,” p. 93]

In today’s intellectual climate, the pragmatist approach might be better understood as a “movement,” as opposed to a “school.” Its many adherents – among them philosophers, jurists and literary critics – share an outlook rather than a creed. To famed scholar of religion and African-American studies Cornel West, pragmatism’s “major themes of evading epistemology-centered philosophy, accenting human powers, and transforming antiquated modes of social hierarchies in light of religious and/or ethical ideals make it relevant and attractive.”33 These characterizations, however, employ such broad strokes that they fail to note that pragmatism is, first and foremost, a philosophy, and that as such it is animated by a rigor and specificity that is often missing when scholarly disciplines deal with theoretical matters. Intellectual historian David Hollinger has noted the prevalence of this trend, under which pragmatism “is flattened into a style of thought characterized by voluntarism, practicality, moralism, relativism, an eye toward the future, a preference for action over contemplation, and other traits of the same degree of generality.”34 Pragmatism is, quite simply, more sophisticated, intricate and demanding than its most common characterization allows, and it is only as a philosophy, not an intellectual trend, that it speaks to the issue of democratic capitalism.

#### They can’t solve their impacts -- no explanation for how ending space appropriation changes cops on the street, global capitalism expanding thru the world, nor how this research makes us want to resist the system.

#### Resistance fails -- gets cracked down on.

**Flaherty ’5** [Kevin; 2005; B.A. in International Relations from the University of South California; Cryptogon, “Militant Electronic Piracy:  
Non-Violent Insurgency Tactics Against the American Corporate State,” <http://cryptogon.com/docs/pirate_insurgency.html/>]

Any violent insurgency against the American Corporate State is sure to fail and will only serve to enhance the state's power. The major flaw of violent insurgencies, both cell based (Weathermen Underground, Black Panthers, Aryan Nations etc.) and leaderless (Earth Liberation Front, People for the Ethical Treatment of Animals, etc.) is that they are attempting to attack the system using the same tactics the American Corporate State has already mastered: terror and psychological operations. The American Corporate State attained primacy through the effective application of terror and psychological operations. Therefore, it has far more skill and experience in the use of these tactics than any upstart could ever hope to attain. This makes the American Corporate State impervious to traditional insurgency tactics.

- Political Activism and the ACS Counterinsurgency Apparatus

The American Corporate State employs a full-time counterinsurgency infrastructure with resources that are unimaginable to most would be insurgents. Quite simply, violent insurgents have no idea of just how powerful the foe actually is. Violent insurgents typically start out as peaceful, idealistic, political activists. Whether or not political activists know it, even with very mundane levels of political activity, they are engaging in low intensity conflict with the ACS.

The U.S. military classifies political activism as “low intensity conflict.” The scale of warfare (in terms of intensity) begins with individuals distributing anti-government handbills and public gatherings with anti-government/anti-corporate themes. In the middle of the conflict intensity scale are what the military refers to as Operations Other than War; an example would be the situation the U.S. is facing in Iraq. At the upper right hand side of the graph is global thermonuclear war. What is important to remember is that the military is concerned with ALL points along this scale because they represent different types of threats to the ACS.

Making distinctions between civilian law enforcement and military forces, and foreign and domestic intelligence services is no longer necessary. After September 11, 2001, all national security assets would be brought to bear against any U.S. insurgency movement. Additionally, the U.S. military established NORTHCOM which designated the U.S. as an active military operational area. Crimes involving the loss of corporate profits will increasingly be treated as acts of terrorism and could garner anything from a local law enforcement response to activation of regular military forces.

Most of what is commonly referred to as “political activism” is viewed by the corporate state's counterinsurgency apparatus as a useful and necessary component of political control.

Letters-to-the-editor...

Calls-to-elected-representatives...

Waving banners...

“Third” party political activities...

Taking beatings, rubber bullets and tear gas from riot police in free speech zones...

Political activism amounts to an utterly useless waste of time, in terms of tangible power, which is all the ACS understands. Political activism is a cruel guise that is sold to people who are dissatisfied, but who have no concept of the nature of tangible power. Counterinsurgency teams routinely monitor these activities, attend the meetings, join the groups and take on leadership roles in the organizations.

It's only a matter of time before some individuals determine that political activism is a honeypot that accomplishes nothing and wastes their time. The corporate state knows that some small percentage of the peaceful, idealistic, political activists will eventually figure out the game. At this point, the clued-in activists will probably do one of two things; drop out or move to escalate the struggle in other ways.

If the clued-in activist drops his or her political activities, the ACS wins.

But what if the clued-in activist refuses to give up the struggle? Feeling powerless, desperation could set in and these individuals might become increasingly radicalized. Because the corporate state's counterinsurgency operatives have infiltrated most political activism groups, the radicalized members will be easily identified, monitored and eventually compromised/turned, arrested or executed. The ACS wins again.

#### Transition goes nuclear:

#### 1---Security threats.

Mann 14 [Eric Mann is a special agent with a United States federal agency, with significant domestic and international counterintelligence and counter-terrorism experience. Worked as a special assistant for a U.S. Senator and served as a presidential appointee for the U.S. Congress. He is currently responsible for an internal security and vulnerability assessment program. Bachelors @ University of South Carolina, Graduate degree in Homeland Security @ Georgetown. “AUSTERITY, ECONOMIC DECLINE, AND FINANCIAL WEAPONS OF WAR: A NEW PARADIGM FOR GLOBAL SECURITY,” May 2014, <https://jscholarship.library.jhu.edu/bitstream/handle/1774.2/37262/MANN-THESIS-2014.pdf>]

The conclusions reached in this thesis demonstrate how economic considerations within states can figure prominently into the calculus for future conflicts. The findings also suggest that security issues with economic or financial underpinnings will transcend classical determinants of war and conflict, and change the manner by which rival states engage in hostile acts toward one another. The research shows that security concerns emanating from economic uncertainty and the inherent vulnerabilities within global financial markets will present new challenges for national security, and provide developing states new asymmetric options for balancing against stronger states.¶ The security areas, identified in the proceeding chapters, are likely to mature into global security threats in the immediate future. As the case study on South Korea suggest, the overlapping security issues associated with economic decline and reduced military spending by the United States will affect allied confidence in America’s security guarantees. The study shows that this outcome could cause regional instability or realignments of strategic partnerships in the Asia-pacific region with ramifications for U.S. national security. Rival states and non-state groups may also become emboldened to challenge America’s status in the unipolar international system.¶ The potential risks associated with stolen or loose WMD, resulting from poor security, can also pose a threat to U.S. national security. The case study on Pakistan, Syria and North Korea show how financial constraints affect weapons security making weapons vulnerable to theft, and how financial factors can influence WMD proliferation by contributing to the motivating factors behind a trusted insider’s decision to sell weapons technology. The inherent vulnerabilities within the global financial markets will provide terrorists’ organizations and other non-state groups, who object to the current international system or distribution of power, with opportunities to disrupt global finance and perhaps weaken America’s status. A more ominous threat originates from states intent on increasing diversification of foreign currency holdings, establishing alternatives to the dollar for international trade, or engaging financial warfare against the United States.

#### 2---Violent collapse.

Milne and Kinsella, 17—Faculty of English, University of Cambridge AND School of Media, Culture and Creative Arts, Faculty of Humanities, Curtin University (Drew and John, “NUCLEAR THEORY DEGREE ZERO, WITH TWO CHEERS FOR DERRIDA,” Angelaki, 22:3, 1-16,) brett

Another version of the “accelerationist” argument captures some of the ideological workings of the term. In Marxist circles, an “accelerationist” is someone who thinks that the collapse of capitalism will be hastened by allowing reactionary forces to speed up capitalism’s self-destruction. There are occasions when such an argument has validity: nothing about the form of the argument makes it inherently or structurally wrong. There are revolutionary moments when allowing capitalism to collapse in order to rebuild a socialist society is a better path than propping up a failing capitalist regime. The judgement is political rather than philosophical. In most contexts, however, the accelerationist argument, especially as a political principle, is deeply dangerous. It would be better, for example, to preserve a failing US capitalist regime while building social forces to take it over, than to allow the nuclear weapons of the United States to fall into the hands of a suicidal military rearguard or some counter-revolutionary terrorist organisation. Preserving the possibility of human life might involve propping up collapsing capitalist institutions, not least the nuclear safety inspectorate, rather than allowing humanity to be swallowed up by some death spiral of presidential dictators in fear of being toppled. These are critical judgements that could arise at any moment, with real risks that poor judgements will hasten a nuclear confrontation that leads to mutually assured annihilation. The formal shape of an accelerationist argument needs to be understood strategically and politically if it is to address nuclear questions.

### 1NC -- Advantage

#### Capitalism is antiracist.

Paul F. deLespinasse 20. Professor Emeritus of Political Science and Computer Science at Adrian College. “Capitalism no friend to racism”. https://www.gazettetimes.com/news/local/paul-f-delespinasse-capitalism-no-friend-to-racism/article\_85bac3a8-805b-587d-9725-0e10f09547a8.amp.html

Some people argue that eliminating racism requires getting rid of capitalism. But racism existed before capitalism developed. Since racism exists in non-capitalist societies, capitalism can't be blamed for it.

True, in some ways capitalism is friendly to racism.

Capitalism combines mostly free markets with predominantly private ownership of the means of production, except for land and other natural resources. (Privately owned natural resources aren't essential characteristics and must probably be abandoned if capitalism is to survive. The alternative isn't governmental ownership of natural resources, but ownership by the public, with government acting as a trustee for it.)

In a market economy people are free to enter into voluntary associations, created by mutual consent, to exchange or transfer inducements. People can hire and be hired, buy and sell, mostly at mutually agreed-upon prices.

Mutual consent being required, racists can refuse to enter voluntary associations with members of the target race. They can refuse to hire them, sell to them or buy from them.

Racism is rooted in stereotyping, assuming that "when you have seen one (person of a certain race), you have seen them all." Since all individuals are unique, stereotyping is stupid, but freedom includes freedom to act stupidly.

To this extent capitalism is racism's ally. But there is another side to this story.

Although capitalism's freedom allows people to indulge their prejudices, it makes them pay for doing so. Their economic interest would be to hire the best available people without considering their race and to sell to all willing customers. Not doing this reduces their income.

Since buyers and sellers want to make the best deals possible, capitalism pushes society away from racist behavior even though it won't immediately eliminate racist thinking. A notable example was a well-known bigot who owned a sports team and hired black athletes because she wanted her team to win.

Racist thinking, though, should be undermined by capitalism's encouragement of voluntary associations between people of different races. Personal relations can undermine people's tendency to think in terms of stereotypes.

The American South was not capitalistic before the Civil War. Slaves did not give their consent to be associated with their owners. Their association was involuntary, not voluntary. They were kept in bondage by sanctions —government's power of the sword.

Capitalism didn't come to the South even after the Civil War. Once the attempted "reconstruction" reforms ended, state governments prevented the normal anti-racist capitalistic tendencies from working. Segregation made it illegal for white people and black people to enter into many kinds of voluntary associations with one another, to work together, to go to school together, even to marry. The fact that governments enacted such legislation indicates their fear that people otherwise would associate with those of different races.

These restrictions clearly violated the basic essence of capitalism: freedom of voluntary association by mutual consent of the parties. Racist societies are not expressions of capitalism, but its contradiction.

And they violated a fundamental requirement of good government: the rule of law. Genuine laws must be general rules of action and cannot impose sanctions on people on the basis of their race.

Some more recent legislation attempting to force bigots to stop discriminating on the basis of race also contradicts the basic capitalistic principle. How can people be forced to enter voluntary associations without their consent when such associations, by definition, require mutual consent?

It is no wonder that today's very well-intended antidiscrimination law is such a conceptual mess. (Open accommodation — first come, first served — laws, however, seem to work well.)

Although capitalism enables bigots to discriminate, it makes them pay an economic price in the form of lost business and lost opportunities to employ the best people. Economic interest tends to pull people together.

Capitalism and racism are basically deadly enemies.

#### Alternative systems worsen racial oppression.

Jim Lindgren 18. Professor of Law at Northwestern University. "Can There Be Capitalism Without Racism? – Reason.com". No Publication. 8-20-2018. https://reason.com/volokh/2018/08/20/can-there-be-capitalism-without-racism/?amp

The website Campus Reform points to a multi-year academic program, Racial Capitalism, hosted at the UC-Davis Humanities Institute that explores the links between racism and capitalism (tip to Glenn Reynolds). Among the questions that were asked at the event launching the program are:

1. "Which came first, capitalism or racism?"
2. "Can there be capitalism without racism?"
3. "Is capitalism always racial?"

IMO, the answers to these questions are fairly obvious:

1. Racism came first. Every inhabited continent had slaves, and ethnic out-groups were among the most likely to be enslaved. It is the abolition of slavery that is particularly Western, as Orlando Patterson explains his books Freedom and Slavery and Social Death.
2. (and 3.) If there can be any economic system without racism (I suppose it depends on how high one's standards are), then capitalism is not always racist and there can be capitalism without racism. Capitalism is easier to square with a reduction in racism than most ideologies because (a) it is individualistic, (b) it is not built on envy for despised groups, and (c) in the United States at least, pro-capitalists tend to be less racist personally than anti-capitalists.

Indeed, in the general public it is the opposition to capitalism and the desire for redistribution that are positively associated with racism and intolerance.

I explore this relationship in "Redistribution and Racism, Tolerance and Capitalism," which analyzes data from 20 nationally representative surveys of the general public.

Abstract

In debates over the roles of law and government in promoting the equality of income or in redistributing the fruits of capitalism, widely different motives are attributed to those who favor or oppose capitalism or income redistribution. According to one view, largely accepted in the academic social psychology literature (Jost et al., 2003), opposition to income redistribution and support for capitalism reflect an orientation toward social dominance, a desire to dominate other groups. According to another view that goes back at least to the nineteenth century origins of Marxism, anti-capitalism and a support for greater legal efforts to redistribute income reflect envy for the property of others and a frustration with one's lot in a capitalist system.

In this paper I expand and test the first (social dominance) thesis using twenty nationally representative General Social Surveys conducted by the National Opinion Research Center between 1977 and 2010, involving over 21,000 respondents. I first show that respondents who express traditionally racist views (on segregation, interracial marriage, and inborn racial abilities) tend to support greater income redistribution. Traditional racists also express less positive views toward free-market capitalism and its consequences, tending to want the government to guarantee jobs for everyone and to fix prices, wages, and profits. Next, I report a similar pattern for those who express intolerance for unpopular groups on the fifteen Stouffer tolerance questions (regarding racists, homosexuals, communists, extreme militarists, and atheists). Those who express less tolerance for unpopular groups tend to favor income redistribution and to be less supportive of capitalism and its discontents. Using full latent variable structural equation modeling shows similar results. The data are broadly inconsistent with the standard belief in the social psychology literature that pro-capitalist and anti-redistributionist views are positively associated with racism and intolerance.

I then explore an alternative hypothesis, showing that, compared to anti-redistributionists, strong redistributionists have much higher odds of reporting anger, sadness, loneliness, outrage, and other negative emotions. Similarly, anti-redistributionists had much higher odds of reporting being happy or at ease. Last, both redistributionists and anti-capitalists expressed lower overall happiness, less happy marriages, and lower satisfaction with their financial situations and with their jobs or housework. Further, in several General Social Surveys anti-redistributionists were generally more likely to report altruistic behavior than those who favored a stronger policy of government redistribution of income.

In addition, in a 1996 survey:

Not only do redistributionists report more anger, but they report that their anger lasts longer. Further, when asked about the last time they were angry, strong redistributionists were more than twice as likely as strong opponents of leveling to admit that they responded to their anger by plotting revenge.

The more interesting question (than whether you can have capitalism without racism) is whether you can have socialism without racism. The answer is yes, but the reason is an enlightening one.

In the long run, a robust socialism (that dominates most of the economy) tends to lead to the scapegoating

of demonized out-groups, because there must be someone to blame for economic failure. Thus, the Soviet Union began with hating the Kulaks and the ownership class more generally, but once these were destroyed, they needed someone else to blame. Though it took many decades, the Soviet Union went beyond targeting "counter-revolutionaries" to add Jews to the list. So the demonized out-groups under socialism don't have to be defined by race or ethnicity; they could instead be defined by economic class, religion, or nationality. Accordingly, socialism doesn't have to be racist, but when it dominates the economy almost inevitably there must be some group to despise.

It would be good if the academy in general–and the UC-Davis Racial Capitalism program in particular–were ideologically diverse enough to reflect some of the substantial evidence from the last few decades on the relationship of capitalism and racism in the views of the general public, evidence that tends to point to a negative association between racism and support for capitalism.

#### Capitalism is sustainable, and conditions are improving.

Schrager **‘**20 [Allison; Winter 2020; Ph.D. in Economics from Columbia University, Senior Fellow at the Manhattan Institute; "Why Socialism Won't Work," https://foreignpolicy.com/2020/01/15/socialism-wont-work-capitalism-still-best/]

WITH INCREASINGLY UBIQUITOUS IPHONES, internet, central air conditioning, flat-screen TVs, and indoor plumbing, few in the developed world would want to go back to life 100, 30, or even 10 years ago. Indeed, around the world, the last two centuries have brought vast improvements in material living standards; billions of people have been lifted from poverty, and life expectancy across income levels has broadly risen. Most of that progress came from capitalist economies.

Yet those economies are not without their problems. In the United States and the United Kingdom, the gap between the rich and poor has become intolerably large as business owners and highly educated workers in urban areas have become richer while workers' wages in rural areas have stagnated. In most rich countries, more trade has brought a bigger, better variety of goods, but it has also displaced many jobs.

With social instability in the form of mass protests, Brexit, the rise of populism, and deep polarization knocking at the capitalist economies' doors, much of the progress of the last several decades is in peril. For some pundits and policymakers, the solution is clear: socialism, which tends to be cited as a method for addressing everything from inequality and injustice to climate change.

Yet the very ills that socialists identify are best addressed through innovation, productivity gains, and better rationing of risk. And capitalism is still far and away the best, if not only, way to generate those outcomes.

TODAY'S SOCIALISM IS DIFFICULT TO DEFINE. Traditionally, the term meant total state ownership of capital, as in the Soviet Union, North Korea, or Maoist China. Nowadays, most people don't take such an extreme view. In Europe, social democracy means the nationalization of many industries and very generous welfare states. And today's rising socialists are rebranding the idea to mean an economic system that delivers all the best parts of capitalism (growth and rising living standards) without the bad (inequality, economic cycles).

But no perfect economic system exists; there are always trade-offs--in the most extreme form between total state ownership of capital and unfettered markets without any regulation or welfare state. Today, few would opt for either pole; what modern socialists and capitalists really disagree on is the right level of government intervention.

Modern socialists want more, but not complete, state ownership. They'd like to nationalize certain industries. In the United States, that's health care--a plan supported by Democratic presidential candidates Elizabeth Warren (who does not call herself a socialist) and Bernie Sanders (who wears the label proudly). In the United Kingdom, Labour Party leader Jeremy Corbyn, who was trounced at the polls in mid-December, has set his sights on a longer list of industries, including the water, energy, and internet providers.

Other items on the socialist wish list may include allowing the government to be the primary investor in the economy through massive infrastructure projects that aim to replace fossil fuels with renewables, as Green New Deal socialists have proposed. They've also floated plans that would make the government the employer of a majority of Americans by offering guaranteed well-paid jobs that people can't be fired from. And then there are more limited proposals, including installing more workers on the boards of private companies and instituting national rent controls and high minimum wages.

For their part, modern capitalists want some, but less, state intervention. They are skeptical of nationalization and price controls; they argue that today's economic problems are best addressed by harnessing private enterprise. In the United States, they've argued for more regulation and progressive taxation to help ease inequality, incentives to encourage private firms to use less carbon, and a more robust welfare state through tax credits. Over the past 15 years, meanwhile, capitalist Europeans have instituted reforms to improve labor market flexibility by making it easier to hire and fire people, and there have been attempts to reduce the size of pensions.

No economic system is perfect, and the exact right balance between markets and the state may never be found. But there are good reasons to believe that keeping capital in the hands of the private sector, and empowering its owners to make decisions in the pursuit of profit, is the best we've got.

ONE REASON TO TRUST MARKETS is that they are better at setting prices than people. If you set prices too high, many a socialist government has found, citizens will be needlessly deprived of goods. Set them too low, and there will be excessive demand and ensuing shortages. This is true for all goods, including health care and labor. And there is little reason to believe that the next batch of socialists in Washington or London would be any better at setting prices than their predecessors. In fact, government-run health care systems in Canada and European countries are plagued by long wait times. A 2018 Fraser Institute study cites a median wait time of 19.8 weeks to see a specialist physician in Canada. Socialists may argue that is a small price to pay for universal access, but a market-based approach can deliver both coverage and responsive service. A full government takeover isn't the only option, nor is it the best one.

Beyond that, markets are also good at rationing risk. Fundamentally, socialists would like to reduce risk--protect workers from any personal or economywide shock. That is a noble goal, and some reduction through better functioning safety nets is desirable. But getting rid of all uncertainty--as state ownership of most industries would imply--is a bad idea. Risk is what fuels growth. People who take more chances tend to reap bigger rewards; that's why the top nine names on the Forbes 400 list of the richest Americans are not heirs to family dynasties but are self-made entrepreneurs who took a leap to build new products and created many jobs in the process.

Some leftist economists like Mariana Mazzucato argue that governments might be able to step in and become laboratories for innovation. But that would be a historical anomaly; socialist-leaning governments have typically been less innovative than others. After all, bureaucrats and worker-corporate boards have little incentive to upset the status quo or compete to build a better widget. And even when government programs have spurred innovation--as in the case of the internet--it took the private sector to recognize the value and create a market.

And that brings us to a third reason to believe in markets; productivity. Some economists, such as Robert Gordon, have looked to today's economic problems and suggested that productivity growth--the engine that fueled so much of the progress of the last several decades--is over. In this telling, the resources, products, and systems that underpin the world's economy are all optimized, and little further progress is possible.

But that is hard to square with reality. Innovation helps economies do more with fewer resources--increasingly critical to addressing climate change, for example--which is a form of productivity growth. And likewise, many of the products and technologies people rely on every day did not exist a few years ago. These goods make inaccessible services more available and are changing the nature of work, often for the better. Such gains are made possible by capitalist systems that encourage invention and growing the pie, not by socialist systems that are more concerned with how the existing pie is cut. It is far too soon, in other words, to write off productivity.

Here, it is worth considering the lessons of a previous productivity boom: the Industrial Revolution. As the economist Joel Mokyr has shown, it took new innovations like the steam engine more than 100 years to appear in productivity estimates. The same could be happening today with smartphones and the internet. Meanwhile, even as that upheaval transformed the human experience, creating a more comfortable existence for most everyone, it was also messy and disruptive. The early part of that innovative cycle--like others since--displaced existing workers while the gains flowed to the owners of capital first, causing social instability.

#### Growth and innovation solves warming.

Ogutonye, 21—Policy Lead, Science & Innovation Unit, Tony Blair Institute for Global Change (Olamide, “Should Tech Make Us Optimistic About Climate Change?,” <https://institute.global/policy/should-tech-make-us-optimistic-about-climate-change>, dml)

In the middle of a climate emergency, it is challenging to stay upbeat. Yet the good news is that investment in climate technology has continued to grow since the early 2010s. US-listed companies involved with providing technology solutions that support global decarbonisation have consistently outperformed the average since 2019 (Figure 7). Venture capital (VC) investment in the sector grew tenfold between 2013 and 2018, representing five times the growth rate of the overall VC market. By comparison, the growth rate of VC investment in Artificial Intelligence was a third of climate tech between 2013 and 2018 although AI is renowned for its uptick within the same timeframe. Beyond VC, public investment in climate technology research has continued to grow too. In 2019, government research and development funding for energy technologies alone stood at $30 billion, with around 80 per cent of it aimed at low-carbon solutions.

In addition to the positive role of technology, political leaders are increasingly showing a willingness to make ambitious commitments on climate. The Paris Agreement is a case in point. The international treaty was adopted in 2015 and ratified internationally within a year – a much quicker pace than its predecessor, the Kyoto Protocol, which took eight years. The Paris deal grew into a political snowball, galvanising further commitment from most of the world’s leading emitters and arguably becoming the most symbolic climate event of the 21st century. The US withdrawal from the Paris Agreement in 2019 dealt a political blow to the global pact although the decision, since reversed by President Biden, did not resonate or last long enough to have any major impact.

The Biden-Harris administration has already indicated that it will not sit on the fence but will instead revive the country’s leadership on climate action. In the UK and elsewhere, similar efforts can be observed as more countries commit to some form of net zero target. More than 100 countries have pledged a commitment towards net zero, with estimates suggesting that over 70 per cent of global GDP and 55 per cent of CO2 emissions are now covered by a similar target. A Climate Action Tracker Report indicates that the cumulative effect of countries’ pledges to the Paris Agreement – if kept and fully achieved – could keep global temperature rise below 2.1°C by 2100, putting the stated goal of 1.5°C within striking distance.

As explored in our recent Institute paper, there are also important insights for politicians in terms of applying lessons from the Covid-19 pandemic to the climate emergency. Although the pandemic is different in scale, complexity and timeline, it offers an immediate window into how policy leaders can adapt and make decisions in order to better support climate innovation. Countries can also apply the “recovering better together” principles outlined by the UN, which calls for a commitment to climate-related actions as economies recover from the Covid-19 slowdown. More than 60 countries, including high emitters, are already making an explicit promise to link their nationally determined contributions (NDC) to Covid-19 recovery, supported by the United Nations Development Programme’s Climate Promise programme. Countries in the Global South are equally aligning their climate mission with international support for various NDC support programmes. A green recovery can cut the level of 2030 emissions to 25 per cent lower than projections based on pre-Covid commitments and put the world close to a 2°C pathway. The pandemic has also highlighted the significance of tech innovation, not least in record-breaking vaccine delivery but also in the suite of digital solutions developed for contact tracing, compliance monitoring and management of health-care records.

The global financial landscape is evolving to become more responsive to climate innovation. Since they were first issued in 2007, green bonds have grown into what is now estimated to become a $1 trillion market. Analysts expect as much as $500 billion of green bonds this year as the EU raises capital for its Covid recovery fund. From target-linked to transition bonds, innovations in this green market are being used to bring projects in energy, transport, buildings and other economic sectors to life. Investor-led initiatives such as Climate Action 100+, whose members control over $50 trillion of assets, are actively using funds to ensure the world’s largest corporate greenhouse gas emitters commit to climate action. Other investor networks are pursuing a similar agenda, including Europe’s Institutional Investors Group on Climate Change (IIGCC) and Australia and New Zealand’s Investor Group on Climate Change (IGCC). Humanity’s competence in technology and innovation will be central to the race in mitigating and tackling climate change.

#### Growth post-COVID halts multiple nuclear risks. We must expand, rather than sabotage, the flow of capital.

RECNA ’21 [Research Center for Nuclear Weapons Abolition; May 28; Based in Nagasaki University, directed by Dr. Fumihiko Yoshida, a Ph.D. in International Public Policy from Osaka University and member of the Advisory Panel of Experts on Nuclear Disarmament and Non-Proliferation for Japan’s Minister of Foreign Affairs; Journal for Peace and Nuclear Disarmament, “Pandemic Futures and Nuclear Weapon Risks: The Nagasaki 75th Anniversary pandemic-nuclear nexus scenarios final report,” vol. 4]

Introduction

The year 2020 marks a symbolic milestone for nuclear disarmament, as it is both the 75th anniversary of the atomic bombing of Hiroshima and Nagasaki and the 50th anniversary of the entry into force of the Treaty on Non-proliferation of Nuclear Weapons (NPT). But the distressing reality is that the risk of a nuclear war – intentional or accidental – is greater than any time since the end of World War II. As of January 2020, the “doomsday clock” published by the Bulletin of Atomic Scientists shows only “100 seconds to midnight,” indicating we are the closest we have been to nuclear apocalypse since the clock was introduced in 1947.[2](https://www-tandfonline-com.proxy.lib.umich.edu/doi/full/10.1080/25751654.2021.1890867)

Over the past year, coronavirus (COVID-19) has transformed the world. It is estimated to have already killed more than 1.5 million people as of the start of December 2020[3](https://www-tandfonline-com.proxy.lib.umich.edu/doi/full/10.1080/25751654.2021.1890867) and has led to global economic shutdowns and societal shifts on an unprecedented scale. The pandemic has slowed efforts to support nuclear disarmament: the 10th NPT Review Conference, scheduled to take place in 2020, was postponed to the middle of 2021. How the COVID pandemic will affect the international order remains unclear: could it usher in a new era of international cooperation as nations join together in a coordinated fight against the disease? Or will economic recession, border closures, and beggar-thy-neighbor “vaccine competition” exacerbate global conflict and antagonism? Given these uncertainties, it is critically important to analyze the relationship between the post-pandemic international order and nuclear weapon risks.

The pandemic has also brought to light another key uncertainty: the changing role of local and state governments and civil society in the pandemic era. These institutions could play a role in reducing nuclear risks. Will civic diplomacy increase or decrease in relative power compared to interstate and corporate diplomacy, and will it prove sufficient to curb tendencies on the part of nuclear weapons states to use or threaten to use nuclear weapons during the pandemic? Asked broadly, how might the COVID-19 pandemic (and future pandemics) create new opportunities or challenges for governments, civil society, and market actors to reduce nuclear risk and resume nuclear disarmament? And how might those challenges and opportunities emerge in Northeast Asia, a region that has in recent years seen increased potential for conflict around issues such as the status of Hong Kong and Taiwan, territorial rights in the South and East China Seas, and the nuclear weapons program in the Democratic People’s Republic of Korea (DPRK, or North Korea)?

These questions were at the heart of the Nagasaki 75th Anniversary Pandemic-Nuclear Nexus Scenarios Project, an international collaboration aimed at exploring how the far-reaching effects of pandemics could alter the landscape for nuclear risk and disarmament. The project was co-sponsored by the Research Center for Nuclear Weapons Abolition, Nagasaki University (RECNA), the Asia Pacific Leadership Network for Nuclear Non-proliferation and Disarmament (APLN), and Nautilus Institute, in cooperation with Nagasaki University Planetary Health and the Panel on Peace and Security of Northeast Asia (PSNA).

Convened over the course of two weekends in October-November 2020, a series of four three-hour workshops brought together roughly 40 participants from around the world. Through the Zoom video conference platform, attendees were able to join from across time zones, including from Australia, China, Hong Kong, India, Italy, Japan, Mongolia, Philippines, Republic of Korea (ROK), Russia, and the United States. The workshops took place under the “Chatham House Rule,” and so ideas and insights are presented in this report without attribution.[4](https://www-tandfonline-com.proxy.lib.umich.edu/doi/full/10.1080/25751654.2021.1890867)

The workshops were centered on scenario planning, a non-predictive means of examining a variety of possible futures to identify critical uncertainties and strategic opportunities. As described in this report, the workshops led to the development of four distinct scenarios for the year 2030. These narratives are intended to highlight key questions about dynamics that could shape the “pandemic-nuclear nexus” over the next ten years.

The goals of the Pandemic-Nuclear Nexus Scenarios Project are to:

* Develop an analytical understanding of the interrelated nature of the co-occurring existential threats of nuclear weapons and global pandemics
* Explore potential levers and pathways to influence the future under various conditions
* Identify concrete strategies to reduce the risk of nuclear war and resume nuclear disarmament to be considered by state and non-state actors, particularly in the Northeast Asia region

The Challenge: Multiple Existential Threats

The relationship between pandemics and war is as long as human history. Past pandemics have set the scene for wars by weakening societies, undermining resilience, and exacerbating civil and inter-state conflict. Other disease outbreaks have erupted during wars, in part due to the appalling public health and battlefield conditions resulting from war, in turn sowing the seeds for new conflicts. In the post-Cold War era, pandemics have spread with unprecedented speed due to increased mobility created by globalization, especially between urbanized areas. Although there are positive signs that scientific advances and rapid innovation can help us manage pandemics, it is likely that deadly infectious viruses will be a challenge for years to come.

The COVID-19 is the most demonic pandemic threat in modern history. It has erupted at a juncture of other existential global threats, most importantly, accelerating climate change and resurgent nuclear threat-making. The most important issue, therefore, is how the coronavirus (and future pandemics) will increase or decrease the risks associated with these twin threats, climate change effects, and the next use of nuclear weapons in war.[5](https://www-tandfonline-com.proxy.lib.umich.edu/doi/full/10.1080/25751654.2021.1890867)

Today, the nine nuclear weapons arsenals not only can annihilate hundreds of cities, but also cause nuclear winter and mass starvation of a billion or more people, if not the entire human species. Concurrently, climate change is enveloping the planet with more frequent and intense storms, accelerating sea level rise, and advancing rapid ecological change, expressed in unprecedented forest fires across the world. Already stretched to a breaking point in many countries, the current pandemic may overcome resilience to the point of near or actual collapse of social, economic, and political order.

In this extraordinary moment, it is timely to reflect on the existence and possible uses of weapons of mass destruction under pandemic conditions – most importantly, nuclear weapons, but also chemical and biological weapons. Moments of extreme crisis and vulnerability can prompt aggressive and counterintuitive actions that in turn may destabilize already precariously balanced threat systems, underpinned by conventional and nuclear weapons, as well as the threat of weaponized chemical and biological technologies. Consequently, the risk of the use of weapons of mass destruction (WMD), especially nuclear weapons, increases at such times, possibly sharply.

The COVID-19 pandemic is clearly driving massive, rapid, and unpredictable changes that will redefine every aspect of the human condition, including WMD – just as the world wars of the first half of the 20th century led to a revolution in international affairs and entirely new ways of organizing societies, economies, and international relations, in part based on nuclear weapons and their threatened use. In a world reshaped by pandemics, nuclear weapons – as well as correlated non-nuclear WMD, nuclear alliances, “deterrence” doctrines, operational and declaratory policies, nuclear extended deterrence, organizational practices, and the existential risks posed by retaining these capabilities – are all up for redefinition.

A pandemic has potential to destabilize a nuclear-prone conflict by incapacitating the supreme nuclear commander or commanders who have to issue nuclear strike orders, creating uncertainty as to who is in charge, how to handle nuclear mistakes (such as errors, accidents, technological failures, and entanglement with conventional operations gone awry), and opening a brief opportunity for a first strike at a time when the COVID-infected state may not be able to retaliate efficiently – or at all – due to leadership confusion. In some nuclear-laden conflicts, a state might use a pandemic as a cover for political or military provocations in the belief that the adversary is distracted and partly disabled by the pandemic, increasing the risk of war in a nuclear-prone conflict. At the same time, a pandemic may lead nuclear armed states to increase the isolation and sanctions against a nuclear adversary, making it even harder to stop the spread of the disease, in turn creating a pandemic reservoir and transmission risk back to the nuclear armed state or its allies.

In principle, the common threat of the pandemic might induce nuclear-armed states to reduce the tension in a nuclear-prone conflict and thereby the risk of nuclear war. It may cause nuclear adversaries or their umbrella states to seek to resolve conflicts in a cooperative and collaborative manner by creating habits of communication, engagement, and mutual learning that come into play in the nuclear-military sphere. For example, militaries may cooperate to control pandemic transmission, including by working together against criminal-terrorist non-state actors that are trafficking people or by joining forces to ensure that a new pathogen is not developed as a bioweapon.

To date, however, the COVID-19 pandemic has increased the isolation of some nuclear-armed states and provided a textbook case of the failure of states to cooperate to overcome the pandemic. Borders have slammed shut, trade shut down, and budgets blown out, creating enormous pressure to focus on immediate domestic priorities. Foreign policies have become markedly more nationalistic. Dependence on nuclear weapons may increase as states seek to buttress a global re-spatialization [6](https://www-tandfonline-com.proxy.lib.umich.edu/doi/full/10.1080/25751654.2021.1890867) of all dimensions of human interaction at all levels to manage pandemics. The effect of nuclear threats on leaders may make it less likely – or even impossible – to achieve the kind of concert at a global level needed to respond to and administer an effective vaccine, making it harder and even impossible to revert to pre-pandemic international relations. The result is that some states may proliferate their own nuclear weapons, further reinforcing the spiral of conflicts contained by nuclear threat, with cascading effects on the risk of nuclear war.

#### Trade decreases arms buildup – decline induces conflict pressures

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When the two countries in conflict also trade with each other, the impact of a country's arming on its TOT is negative. Provided these countries are sufficiently symmetric, not only in terms of technologies and preferences, but also in terms of the mix of their secure resource endowments, equilibrium arming by both is lower and their payoffs are higher under trade than under autarky. These results, which are robust to the presence of trade costs, provide theoretical support to the longstanding classical liberal hypothesis that increased trade openness can ameliorate conflict and thus amplify the gains from trade. With sufficiently extreme differences in the distribution of the primary resources, a shift to trade could induce one country to arm more heavily and to such an extent so as to imply that autarky is preferable over trade to the other country.65 Nevertheless, in an equilibrium that involves positive trade flows, the aggregate allocation of resources to dispute the insecure resource is lower than in an equilibrium with no trade at all. When the structure of comparative advantage is such that the two adversaries do not trade with each other, but instead trade with a third, friendly country and they compete in the same export market, the TOT effect of security policies is positive. As such, a shift from autarky to trade unambiguously intensifies international conflict, possibly with negative net welfare consequences. Consistent with the model's predictions, our empirical analysis provides reduced-form evidence that the effects of trade costs on a country's military spending depend qualitatively on whether trade is with a rival or with a friend. Our findings complement the more structural evidence presented by Martin et al.'s (2008), that increased opportunities for multilateral trade can aggravate bilateral conflict, increasing the likelihood of war. They also complement Seitz et al. (2015)’s evidence that a decrease in trade costs between two countries reduces their military spending, which reduces such spending by other countries.