# 1NC vs MJ

## 1NC – Off

#### Interpretation: affirmatives can only fiat a ban on the private appropriation of outer space, they cannot fiat a new property rights or redistribution regime that would result in the reduction of the private appropriation of outer space

#### Violation: recognizing space as a global commons is not itself a ban.

#### Inserted highlighting--

#### We’ve inserted a section from their Vollmer 20 ev— it proves the aff creates a global liability regime

Vollmer 20 [Sarah Louise Vollmer (St. Mary's University School of Law), “The Right Stuff in Geospace: Using Mutual Coercion to Avoid an Inevitable Prison for Humanity,” 51 ST. MARY'S L.J. 777 (2020). <https://commons.stmarytx.edu/thestmaryslawjournal/vol51/iss3/6?utm\_source=commons.stmarytx.edu%2Fthestmaryslawjournal%2Fvol51%2Fiss3%2F6&utm\_medium=PDF&utm\_campaign=PDFCoverPages> ]CT

even non-participants receive a benefit from the use of the commons. In effect, beneficiaries are free-riding from the capital investment of spacefaring nations and entities. This informs the structure of the ensuing two-part framework: geospace delimitation and global liability ¶ 1. Geospace Delimitation ¶ The history of regulatory delimitation illustrates its effectiveness at balancing the rights of individuals, sovereigns, and mankind. Each instance explained in Part II infra, arose out of public necessity to ensure and protect the maximum utility of the global commons, without the deleteriousness of inhabitability, sovereign interference, or over-exploitation.140 The regimes governing Antarctica, the High Seas, the Atmosphere, and the radio-frequency spectrum evidence that mutually coercive delimitation can honor the common heritage of mankind, without encroaching on the peaceful enjoyment and benefits attributable to these areas.

#### We’ve inserted a section from their Dardot ev— proves that the aff creates a universal management system that still allows appropriation.

Dardot 18 [Pierre Dardot, “What democracy for the global commons?,” The Commons and a New Global Governance, ed. Samuel Cogolati and Jan Wouters (2018). <https://d1wqtxts1xzle7.cloudfront.net/58613276/What_Democracy_-_Dardot_Leuwen_2018.pdf?1552469271=&response-content-disposition=inline%3B+filename%3DWhat_democracy_for_the_global_commons.pdf&Expires=1642726034&Signature=YJi8AG6~Y---mP0qsop4i3t~Z5bVLtQYwuDtUdXm6sdKaYwCJFFzQOL-OiY9nIH~JZsophnChwMlUMSGOCDVh7NhHmUonD28k9fU9PrfN2nYTNV2x8XnvoK2KtelSRvRyWN78eA7uC1isTAf1pO5~abPS9XQnORhjp9nPXjpIuBqLrrJhIUCKNjEorJ0u1h63DxkORBKVZfFh-TawG~PS~WdamGNqfljxjaP1G5bG-hUh1aNw0CuXhnqdd8yeH0-uT7iXVNu8cDl2zOtobIiAmD0SBKxjUXP8SYLkvNO0BETnpIzetK7gW8yksHtYjt-WasarhkMQpHeNwvJOY8QeA__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA>] CT

In order to introduce the first point, we must return to our discussion of the commons. Early on in this chapter, we established that the commons are institutional matters to the extent that they determine the rules of common use. In this sense, the commons emerge from what we might legally refer to as the ‘public’, not only in the orthodox economics sense of the collective nature of ‘public goods’, but also in terms of the public in opposition to the private. It is important to note that this public sui generis is non-state public. What exactly does this mean? The state’s public aims to ensure universal access to services but it does so by allowing state administration to monopolize the management of these services, thereby excluding users reduced to mere consumer status. The non-state public of the commons guarantees universal access via user participation in this management.

#### 1. Limits— any aff can be topical through its effects, its just a question of reading enough internal links to get to an argument that resembles a topical action

#### 2. Predictability-- makes the topic bi-directional explodes predictability – it means that Aff’s can both increase non-exist property regimes in space AND decrease appropriation by private actors – makes the topic untenable.

#### 3. Ground – wrecks Neg Generics – we can’t say appropriation good since the 1AC can create new views on Outer Space Property Rights that circumvent our Links since they can say “Global Commons” approach solves.

#### 4. TVA solves – just defend that space appropriation is bad

#### Paradigm issues:

#### Drop the debater – their abusive advocacy skewed the debate from the start

#### Comes before 1AR theory – NC abuse is responsive to them not being topical

#### Competing interps – reasonability invites arbitrary judge intervention and a race to the bottom of questionable argumentation

#### No RVIs – fairness and education are a priori burdens – and encourages baiting – outweighs because if T is frivolous, they can beat it quickly

#### Fairness is a voter ­– necessary to determine the better debater

1. Education is a voter – why schools fund debate

## 1NC – Off

#### Interpretation: The affirmative may only implement the plan for “private entities” --- that excludes governments

UpCounsel n.d. [(UpCounsel, interactive online service that makes it faster and easier for businesses to find and hire legal help solely based on their preferences) “Private Entity: Everything You Need to Know”] JL

A private entity can be a partnership, corporation, individual, nonprofit organization, company, or any other organized group that is not government-affiliated. Indian tribes and foreign public entities are not considered private entities.

#### Violation—they advocate for “global commons” which means no individual, including governments, own property in outer space.

#### Inserted highlighting--

#### **Global commons is implemented for governments and public entities--1AC Vollmer**

absolute liability mechanisms.175 As such, shared global liability will consider the responsibility of nation-states and private entities in isolation.176 This will coerce cooperation among all agencies, nations, and private entities because the equitable share of responsibility will drive collective resolution. ¶ V. CONCLUSION¶ In light of the emerging global sentiments regarding environmental conservation and sustainability, instituting a regime that clearly defines a legal consequence in the event of environmental ruin boasts greater coercive force than non-binding resolutions. 9 This international agreement aligns with the universal value that the international community places on the utility of geospace.

#### 1AC defends implementation including states and private entities--- **1AC Silverston**

Debris in higher orbits can persist for a century or more. The costs of adapting to increasingly polluted orbits would be immense, and the opportunity costs would be even higher. For instance, all else being equal, hardening satellites against collisions increases their mass and volume, in turn raising launch costs per satellite. These costs, rooted in a failure to govern space as a commons, will be borne by all space actors, including emerging states and commercial entities.¶ EXISTING FORMS OF SPACE GOVERNANCE¶ A well-designed governance system, founded on a widespread understanding of Earth orbits as a great commons, could temper these risks. Currently, space is not wholly unregulated, but existing regulations are limited both in scope and implementation.

#### Vote neg--

#### Limits – their interpretation justifies affs banning any government from appropriating space – that skirts the core topic controversy of what private entities specifically should do and kills uniqueness because national appropriation is already prohibited – unlimited topics incentivize obscure affs that negs won’t have prep on – limits are key to reciprocal prep burden – extra T creates a slippery slope that incentivizes Frankenstein affs with infinite additional planks to circumvent neg links

#### Neg ground--Kills neg prep and ground because they can shift out of links defending governments and creates infinite prep burdens for unpredictable affs that spec companies along with permutation of countries.

#### TVA solves –defend the appropriation of private entities as unjust

#### Don’t let them say plan text in a vacuum—their plan includes a global commons—ruins 1NC strategy because are no longer able to predict the mechanism the aff goes through—at best it means you give the neg links makes up for shiftiness

#### c/a paradigm

## 1NC – Off

#### JCPOA passes now – political will is key

Reuters 2/18 [(Reuters) “Iran nuclear deal could be agreed very soon, EU official says” Reuters, 2/18/2022. https://www.reuters.com/world/middle-east/iran-nuclear-deal-could-be-agreed-very-soon-eu-official-says-2022-02-18/] BC

BRUSSELS:

A senior European Union official said on Friday that a US-Iranian deal to revive Iran's 2015 nuclear agreement was close but success depended on the political will of those involved.

"I expect an agreement in the coming week, the coming two weeks or so," the EU official said. "I think we have now on the table text that are very, very close to what is going to be the final agreement," the official said.

Reuters reported on Feb 17 details of a possible deal negotiated by envoys from Iran, Russia, China, Britain, France, Germany, the European Union and United States.

"Most of the issues are already agreed. But as a principle in this kind of negotiations, nothing is agreed until everything is agreed. So we still have...some questions, some of them rather political and difficult to agree," the official said.

The official said a deal was necessary as Iran's sensitive uranium enrichment programme was moving ahead quickly. Iran has always denied it is seeking nuclear weapons.

"On the ground they are advancing very much at a speed that is not compatible with the long-term survival of the JCPOA," the official said, referring to the Joint Comprehensive Plan of Action, as the 2015 nuclear deal between Iran and world powers is formally titled.

#### Space diplomacy directly trades off with nonproliferation agreements – finite manpower, money, and political will within the AVC

Johnson-Freeze 16 [(Joan, Professor and former Chair of National Security Affairs at the US Naval War College, Newport, Rhode Island) “Space Warfare in the 21st Century: Arming the Heavens,” Cass Military Studies, 11/8/2016] JL

 \*The plan is legislated in the AVC (same bureau of the State Department that’s concerned with the JCPOA)

Proactive policymaking takes commitment, manpower, and money. A quick look at the money and manpower devoted to diplomacy in the US State and Defense departments compared to the resources available for the hardwareproducing military–industrial complex efforts described in Chapter 5 is enlightening. The Assistant Secretary of State for Arms Control, Verification, and Compliance (AVC) leads space-related diplomacy in the State Department. The AVC Bureau is responsible for “all matters related to the implementation of certain international arms control, nonproliferation, and disarmament agreements and commitments; this includes staffing and managing treaty implementation commissions.”34 The AVC arms control portfolio includes nuclear, biological, and chemical weapons and all related issues. The AVC section charged with space issues is the Office of Emerging Security Challenges; this office also handles missile defense issues and the promotion of transparency, cooperation, and building confidence regarding cybersecurity. As of financial year 2013, AVC had a budget of $31.2 million and 141 employees35 to be active participants and leaders in all of these issues.

By way of comparison, the Space Security and Defense Program, a joint program of the DoD and the Office of the Director of National Intelligence (ODNI) was programmed for a similar budget amount in financial year 2015: $32.3 million. That program is described as a “center of excellence for options and strategies (materiel, non-materiel, cross-Title, cross-domain) leading to a more resilient and enduring National Security Space (NSS) Enterprise.”36 A majority of SSDP funding is allocated to the development of offensive space control strategies. So basically, the same budget is allocated for all US global space diplomacy efforts as for an in-house Pentagon think tank to devise counterspace strategies.

Within the Pentagon, the Deputy Assistant Secretary of Defense for Space Policy is charged with all issues related to space policy, including diplomacy. The responsibilities of the Space Policy office are to:

• Develop policy and strategy for a domain that is increasingly congested, competitive, and contested

• Implement across DoD — plans, programs, doctrine, operations — and with the IC and other agencies

• Engage with allies and other space-faring countries in establishing norms and augmenting our capabilities.37

The breadth of those responsibilities, which includes reviewing space acquisitions, means that there may be only a handful of individuals actually engaged in multilateral diplomatic efforts, acting, for example, as advisors to diplomatic discussions such as those through the United Nations. Additionally, the expanse of the Pentagon results in a chain of command that makes organizational competition for attention to subject matter challenging at best. The Deputy Assistant Secretary of Defense for Space Policy reports to the Assistant Secretary of Defense for Homeland Defense, who then reports to the Principle Deputy Secretary of Defense for Homeland Defense and Global Security, who then reports to the Under Secretary of Defense for Defense Policy. There are also a multitude of space players in other governmental organizations to coordinate and contend with, particularly within the Air Force and intelligence communities. Personnel are spread thin.

US government-wide space diplomacy needs a mandate, manpower, and a supporting budget. Diplomacy, especially multilateral diplomacy, can be timeconsuming, manpower-intensive, and frustrating; and patience is not a strong American virtue. The recent experience in the UN LTS Working Group is emblematic of everything that causes the United States to shun multilateralism. Under the auspices of this group, countries had worked in good faith over the past five years to develop technical guidelines as reciprocal constraints, as insisted upon by the developing countries when they rejected the ICOC. Yet group success appeared thwarted at the February 2016 meeting of the LTS Working Group by one country, Russia.

#### Iran Prolif cascades undermine deterrence and cause nuclear war – this is predictive of what a multi-nuclear Middle East would look like

Krepinevich 13 – [(Dr. Andrew F, the President of the Center for Strategic and Budgetary Assessments) “Critical Mass: Nuclear Proliferation in the Middle East,” 2013, https://csbaonline.org/uploads/documents/Nuclear-Proliferation-in-the-Middle-East.pdf] TDI

As more countries over time develop nuclear capabilities and build up their nuclear arsenals, the competition will evolve from an Israeli-Iranian affair to a multi-state rivalry. For illustrative purposes **we will assume that** in the 2025-2030 timeframe, **Iran**, **Saudi Arabia, Turkey, and perhaps Egypt** and/or Iraq **have nuclear arsenals** in the low double-digit range (i.e., ten to forty weapons). What form might a nuclear competition among these powers and Israel assume? The remainder of this chapter attempts to shed some light on this issue, and its potential implications, with emphasis on those affecting regional stability.

The challenge of preserving stability when confronted with military competition among five nuclear-armed states within the Middle East and with other powers external to the region engaged in a Great Game for influence is formidable. At first blush, one thing seems apparent: **many** Cold War-era metrics **for assessing the competition and gauging where it might be headed** appear to be of little utility; in fact, **they may actually prove misleading and dangerous**. The same can be said of those looking to apply Cold War-era arms control metrics as a way of keeping the peace in general and avoiding nuclear use in particular.

**During the Cold War, many nuclear strategists came to view nuclear parity** (the possession of roughly equivalent arsenals capable of inflicting roughly equivalent levels of destruction) **between the United States and the Soviet Union as stabilizing**. The perception of these strategists is that the rough equivalence contributed to the tradition of non-use of nuclear weapons, and was thus desirable. Parity enabled both sides to avoid the perception of being inferior to their rival, and perceptions are critical to deterrence and to preserving the confidence of one’s allies and security partners. If accepted by both sides, parity could enable them to avoid the cost and instability associated with “racing” toward ever-larger arsenals. Accordingly, maintaining parity was a major objective of U.S.-Soviet (and later U.S.-Russian) arms control negotiations. Yet irrespective of its merits, parity is not an option for states engaged in an n-player competition. Each competitor cannot have a nuclear force equivalent to all the others. Even if the competition should solidify into two coalitions so as to mimic the two-player Cold War competition, questions would almost certainly arise regarding the willingness of a coalition partner that has not been attacked to risk its own destruction by using its nuclear weapons in response to an attack on its ally. Indeed, these concerns were raised during the Cold War, and formed a major justification for France pursuing its own force de frappe. 93

**In a Middle Eastern “n-player” competition, all nuclear powers would be** challenged to establish an “assured destruction” capability **against all the other regional nuclear powers**, another Cold War desideratum, **given their relatively modest economies. An “assured destruction” capability in an n-state competition would require that each state have weapons sufficient to survive an initial attack by all potential rivals and still be able to devastate the countries of all attackers**. It would also require that the source of the attack be reliably identified. As noted earlier, this may prove difficult given likely limitations on these states’ ability to field advanced early warning systems. For example, would Israel be able to determine with confidence the owner of a ballistic missile launched from a location along the Iranian-Turkish border? The origin of any cruise missile launched from a sea-based platform? Even assuming a state could identify the source (or sources) of an attack, could its command and control systems survive the attack sufficiently intact to execute a retaliatory strike? **A decapitation strike could preclude an “assured destruction” retaliatory strike even if sufficient weapons survive to execute one.**

**This, in turn,** raises the possibility of a “catalytic” war**—one that is initiated between two states by a third party. Given a proliferated Middle East as described above, the chances that a regime would incorrectly attribute the source of an attack cannot be easily dismissed. To the extent** cyber weapons can introduce false information **into a state’s decision-making process, the risks of catalytic war only increase.**

Further complicating matters, **the early warning requirement following a proliferation cascade could be multidirectional, and at some point perhaps 360 degrees**, especially if nuclear rivals begin deploying a portion of their nuclear forces at sea. **Early warning requirements would be stressed even further** (and the costs of such a system increase correspondingly) **if a neighboring state** (e.g., Iran in the case of Turkey or Iraq; Turkey in the case of Israel; etc.) **were to acquire nuclear weapons**. In this case warning times would be even more compressed than in an Israeli-Iranian competition. Owing to its proximity to Iran, **Saudi Arabia**, for example, **could have less than five minutes to react to an Iranian ballistic missile attack no matter how advanced its early warning and command and control systems are.**

As noted earlier in this assessment, regardless of what assumptions are made regarding a regional nuclear power’s early warning system, given the short ballistic missile flight times it seems likely that preserving command and control of the state’s nuclear forces while under attack will prove challenging. **States might be tempted to adopt a launch-on-warning posture**, but this requires both early warning and a highly responsive command and control system. Should a state determine that it will not be able to launch-on-warning and instead attempt to “ride-out” a nuclear first strike and retaliate, it would still need its command and control system to function effectively in the wake of the nuclear attack. **Absent a highly resilient command and control system,** a state’s ability to launch a retaliatory **nuclear strike** may require nuclear release authority to be diffused to lower-level commanders. But again, absent an effective early warning system it may not be possible to determine the attack source with confidence in a region with multiple nuclear powers.

#### Nuclear war causes extinction – famine and climate change

Starr 15 [(Steven, Director of the University of Missouri’s Clinical Laboratory Science Program and a senior scientist at the Physicians for Social Responsibility) “Nuclear War, Nuclear Winter, and Human Extinction,” Federation of American Scientists, 10/14/2015] DD

While it is impossible to precisely predict all the human impacts that would result from a nuclear winter, it is relatively simple to predict those which would be most profound. That is, a nuclear winter would cause most humans and large animals to die from nuclear famine in a mass extinction event similar to the one that wiped out the dinosaurs.

Following the detonation (in conflict) of US and/or Russian launch-ready strategic nuclear weapons, nuclear firestorms would burn simultaneously over a total land surface area of many thousands or tens of thousands of square miles. These mass fires, many of which would rage over large cities and industrial areas, would release many tens of millions of tons of black carbon soot and smoke (up to 180 million tons, according to peer-reviewed studies), which would rise rapidly above cloud level and into the stratosphere. [For an explanation of the calculation of smoke emissions, see Atmospheric effects & societal consequences of regional scale nuclear conflicts.]

The scientists who completed the most recent peer-reviewed studies on nuclear winter discovered that the sunlight would heat the smoke, producing a self-lofting effect that would not only aid the rise of the smoke into the stratosphere (above cloud level, where it could not be rained out), but act to keep the smoke in the stratosphere for 10 years or more. The longevity of the smoke layer would act to greatly increase the severity of its effects upon the biosphere.

Once in the stratosphere, the smoke (predicted to be produced by a range of strategic nuclear wars) would rapidly engulf the Earth and form a dense stratospheric smoke layer. The smoke from a war fought with strategic nuclear weapons would quickly prevent up to 70% of sunlight from reaching the surface of the Northern Hemisphere and 35% of sunlight from reaching the surface of the Southern Hemisphere. Such an enormous loss of warming sunlight would produce Ice Age weather conditions on Earth in a matter of weeks. For a period of 1-3 years following the war, temperatures would fall below freezing every day in the central agricultural zones of North America and Eurasia. [For an explanation of nuclear winter, see Nuclear winter revisited with a modern climate model and current nuclear arsenals: Still catastrophic consequences.]

Nuclear winter would cause average global surface temperatures to become colder than they were at the height of the last Ice Age. Such extreme cold would eliminate growing seasons for many years, probably for a decade or longer. Can you imagine a winter that lasts for ten years?

The results of such a scenario are obvious. Temperatures would be much too cold to grow food, and they would remain this way long enough to cause most humans and animals to starve to death.

Global nuclear famine would ensue in a setting in which the infrastructure of the combatant nations has been totally destroyed, resulting in massive amounts of chemical and radioactive toxins being released into the biosphere. We don’t need a sophisticated study to tell us that no food and Ice Age temperatures for a decade would kill most people and animals on the planet.  Would the few remaining survivors be able to survive in a radioactive, toxic environment?

## 1NC – Case

### 1NC-Underview

1. **Ethics –We are not responsible for defending everything the countries have done – hoarding resources is bad, but does not make extinction any less morally repugnant**
2. **Compound Probability- No slippery slope fallacies: you have to answer our internal links and specific scenarios**

**(C) Causal Direction – predictions are possible: we have made probabilistic claims with evidence and you should have to explain why the probability is actually low**

**(D) Complexity- this is a link of omission – obviously there are infinite things that could happen in the future, but we’ve made an argument about why the DA is most likely – the onus is on you to explain how complexity takes out our scenario**

### 1NC – Solvency

#### Presumption – there’s zero legal basis or enforcement mechanism for space as a “commons”

Herzfeld et al 15 [(Dr. Henry, Research Professor of Space Policy and International Affairs at George Washington University) “How Simple Terms Mislead Us: The Pitfalls of Thinking about Outer Space as a Commons,” Secure World Foundation, 2015] JL

Furthermore, there is a logical contradiction in this discussion about outer space being treated as a commons. If a commons needs a sovereign government to grant the open territory to the use of all people, it is that government that has to oversee, regulate, and enforce that charter. Art. II of the OST prohibits national sovereignty in outer space. Thus, it is an area without a government. Even if all nations regard outer space as a “commons,” it is a very different concept from any commons that has been established in the past. There is no real legal precedent, no true means of oversight or enforcement, and therefore should not be confused with any of the many ways that concept has been applied to the territory or oceans of the Earth. Thinking about space as a global commons may be a laudatory ideal, and one that perhaps can be regarded as a very long-term goal for society. But, it is hardly a practical solution or goal for the problems we face today, witnessed by at least a thousand years of precedent in law and practice coupled with radically different technologies, exponential world population growth from 500 million people (at most) in Roman times and the Middle Ages to over 7 billion people today,38 and other radical political and social changes.

### 1NC – Debris

#### Can’t solve--- the aff only restricts the amount of space debris means any more accumulation of debris causes their impact—and public thumps—countries like the US, China, Russia, etc can develop technology on their own

#### Reject laundry list impacts— none of them have external impacts and don’t let them sandbag on more in the 1ar.

#### Debris creates existential deterrence by raising the bar for conflict – international norms fail

Miller 7/31 [(Gregory, Chair of the Department of Space Power at the Air Command and Staff College, Ph.D. in Political Science from The Ohio State University) “Deterrence by Debris: The Downside to Cleaning up Space,” Space Policy, 7/31/2021] JL

The danger of kinetic strikes increasing orbital debris is a common theme in the literature, but the positive deterrent effects of some debris are often overlooked. The debris resulting from destroyed satellites, or other space objects, creates a deterrent effect on actors who might otherwise violate international norms and strike at objects in space, either to test their capabilities or as an act of hostilities. This is not deterrence in the traditional sense, of one actor publicly threatening punishment in response to another actor’s unwanted actions. It is not deterrence by denial since the attacker is not damaged and may even achieve its objective. Nor is it deterrence by punishment because the debris itself does not threaten to punish the attacker’s country. But debris can increase the future costs to the aggressor, even if their initial attack succeeds, and thus it has a similar restraining effect on certain behavior. Like the automated response of the U.S. tripwire in West Germany, the threat that debris can pose to state interests acts as a form of deterrence, at least to prevent some actors from taking certain types of actions. Removing the danger of debris will weaken that restraint and thus weaken deterrence, making ASAT tests and hostile actions in space more likely.

Several factors may deter a state from launching kinetic tests or striking against an adversary’s interests in space. For one thing, if a state’s adversary has similar capabilities to destroy objects in space, deterrence would be a function of not wanting to escalate tensions. Although international law only explicitly prohibits states from placing weapons of mass destruction in orbit, international space law, like the Outer Space Treaty [30], does provide a framework for addressing the activities of one state that lead to the damage of another state’s property. Likewise, there are international norms (informal but expected rules of behavior) against the weaponization of space. But these norms seem to be in decline [31], and such norms only deter a state from engaging in certain types of behavior if the state cares about following norms, if it cares about how states perceive its behavior, or if it believes other states are willing to enforce the norms. The beauty of debris as a deterrent is that it does not rely on the enforcement of norms or the credibility of states to succeed.

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

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

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

### 1NC – Cap

#### 1AC Wehrlhof doesn’t say extinction – hold them to their evidence – and reject value to life arguments – it’s repugnant and paternalistic for Marlborough to be the arbiter of whether others’ lives are worth living

#### Public sector thumps— your ev is about governments not just space X—means you can solve mass production by entities

#### Don’t let them get impacts for cap they are an insignificant reduction—imf, wto, etc all still exists post plan

#### You link to cap bad—

**Werlhof 15** – Claudia, Professor of Political Science/Women's Studies, University Innsbruck (Austria), 2015 (“Neoliberal Globalization: Is There an Alternative to Plundering the Earth?” Global Research, May 25th, Available Online at http://www.globalresearch.ca/neoliberal-globalization-is-there-an-alternative-to-plundering-the-earth/24403)

The logic of neoliberalism as a sort of totalitarian neo-mercantilism is that all resources, all markets, all money, all profits, all means of production, all “investment opportunities”, all rights and all power belong to the corporations only. To paraphrase Richard Sennett: “Everything to the Corporations!”[54] One might add: “Now!” The corporations are free to do whatever they please with what they get. Nobody is allowed to interfere. Ironically, we are expected to rely on them to find a way out of the crisis we are in. This puts the entire globe at risk since responsibility is something the corporations do not have or know.

#### Cap solves debris – public companies have been creating debris for years, only private companies are building solutions

Leo **Shvedsky 18** [Leo Shvedsky. . “There’s now a giant net collecting garbage in space and it’s as cool as it sounds.”. 9-23-2018. GOOD. [https://www.good.is/articles/space-net-captures-debris. Accessed 7-25-2021](https://www.good.is/articles/space-net-captures-debris.%20Accessed%207-25-2021)]

Planet Earth already has its plate full with challenges of how to reduce the amount of manmade waste polluting our environment. Unfortunately, our uncanny ability to make a mess isn’t limited to this planet. “Space junk,” aka debris left behind from satellites, rockets and other projects, is a growing problem in Earth’s orbit. If you’ve seen the film “Gravity” you have an idea of just how problematic, and even deadly, just a small amount of space debris can be when it accelerates to incredible speeds in our planet’s orbit. That junk poses a very real threat to the International Space Station, the Hubble Telescope and other projects. As NASA recently wrote: “A huge amount of debris has progressively been generated since the beginning of the space era. Most of the objects launched into space are still orbiting the Earth and today these objects and their by-products represent a threat both in space and on Earth.” So, a British team from the University of Surrey just successfully tested a net that shoots out to capture floating debris. It’s as cool as it sounds as here’s some black and white video showing it in all of its glory: “This is not sci-fi. We repeat, not sci-fi,” read a tweet from NanoRacks, a Texas-based company that helped develop the net deployer. The incredible new project works by using 3D mapping and, yes, an actual harpoon to target space debris and capture it. For this test, the team sent out their own bit of debris, which ironically ended up moving faster than expected but also therefore showed how effective the process can be. But what’s the point of ensnaring space junk if there’s no way to bring it back in? Well, the test showed that the ensnared debris, along with the net itself, will eventually fall into the Earth’s atmosphere where it will burn up before it can do any damage to those in space, or back down on Earth below.

#### Capitalism and tech innovation solves warming—

Friedman 21 [(Thomas L., Mr. Friedman was awarded the 1983 Pulitzer Prize for international reporting (from Lebanon) and the 1988 Pulitzer Prize for international reporting (from Israel). He also won the 2002 Pulitzer Prize for commentary.) “Want to Save the Earth? We Need a Lot More Elon Musks.,” New York Times, 11/16/21. <https://www.nytimes.com/2021/11/16/opinion/glasgow-climate-change.html>] RR

This is not serious — not when you’re talking about reversing all the ways that we have destabilized Earth’s systems, from ice caps and ocean currents to coral reefs and tropical forests to the density of carbon dioxide in the atmosphere. This is pretend.

Serious was how we responded to Covid-19, when it really did feel like the world economy was ending: We fought back with the only tools we have that are as big and powerful as Mother Nature — Father Profit and New Tech.

We combined innovative biotech firms — like Pfizer-BioNTech, Moderna and some small start-ups — with today’s massive computing power and a giant market demand signal, and what did we get? In a little over a year after first being locked down by the virus, I had an effective mRNA vaccine against Covid-19 in my body — followed by a booster!

That was an amazing feat of biotechnology and computerized logistics to develop and deliver vaccines. And I hope the scientists, employees and shareholders of those vaccine innovators make boatloads of money — because it will incentivize others to apply a similar formula to stem climate change.

I have nothing against Glasgow. I admire those leaders who are trying to inspire the world to cut CO2 emissions, preserve biodiversity and hold each other to account. But we will not decarbonize the global economy with a lowest-common-denominator action plan of 195 countries. Not possible.

We will get there only when Father Profit and risk-taking entrepreneurs produce transformative technologies that enable ordinary people to have extraordinary impacts on our climate without sacrificing much — by just being good consumers of these new technologies.