## 1NC – Off

### CP - Consult NATO

#### Counterplan: States should enter into a prior and binding consultation with the North Atlantic Treaty Organization over a proposal to declare that Outer space ought to be recognized as a global commons. States will support the proposal and adopt the results of consultation.

#### NATO says Yes – Stoltenberg indicates that NATO cares about space appropriation and debris damage

KSAT 10/16 ksat.com October 16, 2021. “Russia rejects accusations of endangering ISS astronauts” [Russia rejects accusations of endangering ISS astronauts (ksat.com)](https://www.ksat.com/news/world/2021/11/16/russia-rejects-accusations-of-endangering-iss-astronauts/#:~:text=MOSCOW%20%E2%80%93%20Russian%20officials%20on%20Tuesday%20rejected%20accusations,threaten%20activities%20in%20space%20%E2%80%9Cfor%20years%20to%20come.%E2%80%9D) Accessed 12-9 // gord0

MOSCOW (AP) — Russian officials on Tuesday rejected accusations that they endangered astronauts aboard the International Space Station by conducting a weapons test that created more than 1,500 pieces of space junk but a White House official said the move by Russia would threaten activities in space “for years to come.”

U.S. officials on Monday accused Russia of destroying an old satellite with a missile in what they called a reckless and irresponsible strike. They said the debris could damage the space station, an assessment backed by NATO’s chief.

Astronauts now face four times greater risk than normal from space junk, NASA Administrator Bill Nelson told The Associated Press. The defunct Russian satellite Cosmos 1408 was orbiting about 40 miles (65 kilometers) higher than the space station.

The test clearly demonstrates that Russia, “despite its claims of opposing the weaponization of outer space, is willing to ... imperil the exploration and use of outer space by all nations through its reckless and irresponsible behavior,” U.S. Secretary of State Antony Blinken said.

White House spokesperson Andrew Bates said Tuesday that Russia’s action demonstrated its “complete disregard for the security, safety, stability and long-term sustainability of the space domain for all nations. This debris will continue to pose a direct threat to activities in outer space for years to come and puts at risk satellites all nations rely on for national security, economic prosperity and scientific discovery.” He said the United States would work with its allies “as we seek to respond to this irresponsible act.”

Even a fleck of paint can do major damage when orbiting at 17,500 mph (28,000 kph). Something big, upon impact, could be catastrophic to the space station.

Russia’s Defense Ministry on Tuesday confirmed carrying out a test and destroying a defunct satellite that has been in orbit since 1982, but insisted that “the U.S. knows for certain that the resulting fragments, in terms of test time and orbital parameters, did not and will not pose a threat to orbital stations, spacecraft and space activities.” It called remarks by U.S. officials “hypocritical.”

Defense Minister Sergei Shoigu said the strike was carried out “with surgical precision” and posed no threat to the space station. Foreign Minister Sergey Lavrov also charged that it is “hypocrisy” to say that Russia creates risks for peaceful activities in space.

The Russian space agency Roscosmos wouldn’t confirm or deny that the strike took place, saying only that the “unconditional safety of the crew has been and remains our main priority.”

Once the situation became clear early Monday morning, those on board the International Space Station — four Americans, one German and two Russians — were ordered to immediately seek shelter in their docked capsules. They spent two hours in the two capsules, finally emerging only to have to close and reopen hatches to the station’s individual labs on every orbit, or 1 1/2 hours, as they passed near or through the space debris.

NATO Secretary-General Jens Stoltenberg agreed that Russia’s actions endangered the space station.

“This was a reckless act by Russia to actually shoot down and destroy a satellite as part of a test of an anti-satellite weapons system,” which created a lot of space debris, Stoltenberg told reporters in Brussels.

He said it was of additional concern “because it demonstrates that Russia is now developing new weapons systems that can shoot down the satellites, can destroy important space capabilities for basic infrastructure on Earth, like communications, like navigation, or like early warning of missile launches.”

#### Consultation over space strengthens NATO legitimacy and operations – communication, positioning, missile warning and counter space ops

Louisa Remuss 10 Nina-Louisa Remuss holds a M. Litt, in International Security Studies from the University of St. Andrews and a B.A. in European Studies from the University of Maastricht. October, 2010. “NATO and Space: Why is Space Relevant for NATO?” [NATO and Space: Why is Space Relevant for NATO? (ethz.ch)](https://www.files.ethz.ch/isn/124749/ESPI_Perspectives_40.pdf) Page 2-3 Accessed 12-9 // gord0

The increasing reliance on space applications and the emerging global challenges and threats, place new demands on space capabilities.5 Given today’s multi-polar world, security providers face a very different security and threat environment than during the Cold War. At the same time, during the Cold War, the U.S. and the Soviet Union had agreed not to attack each other’s space assets, which provided for a certain degree of transparency given that both were the sole actors in space. Characterizing conflicts as fundamentally unpredictable, NATO’s Allied Joint Doctrine stresses the added value of using technology. Accordingly, NATO’s operations are already dependent on space applications as NATO comes to rely on it for global situational awareness, decision superiority and precision engagement. In spite of NATO’s dependence on space operations, the Alliance is still missing a holistic approach to the subject. Space applications can be understood as force multipliers or enablers. The following section will rely on the EU’s experiences and will give four examples of areas where this is the case: in external security missions, in damage and impact assessment during post-crisis management, in the fight against piracy and in providing internal security, i.e. against nontraditional threats such as terrorism, natural disasters etc. In External Security Missions European Union external security missions, such as the EU Military Crisis Management Operations EUFOR Chad / RCA (from French: Central African Republic) rely on satellites for secure communications between the Operations Headquarters (OHQ) and units deployed on the field, as well as on satellite imagery for mapping in support of their mission, especially considering the local absence of terrestrial communications infrastructure and the large dimensions of the theatre of operations. NATO is relying on space applications to support its ISAF operations in Afghanistan. These range from communications, position, navigation and timing, environmental sensing, missile warning, personnel recover and infrared remote sensing, to counter space operations. Space capabilities are however not fully integrated and utilised as a result of, first the lack of NATO strategy to space applications, second the resulting limited exposure of space capabilities prior to the deployment and third the limited number of personnel among the ISAF staff with space expertise.

#### NATO is a force multiplier – solves a slew of existential threats

Burns 18 Nicholas Burns 7-11-2018 “What America Gets Out of NATO” <https://www.nytimes.com/2018/07/11/opinion/what-america-gets-out-of-nato.html> (former under-secretary of state and ambassador to NATO and teaches diplomacy and international relations at Harvard)//Elmer

None of this, of course, is likely to disturb Mr. Trump, who remains steadfast in his belief that whatever benefits the United States gained from the trans-Atlantic alliance in the past, the country no longer profits. But he’s wrong — there are compelling reasons that NATO in particular will be a distinct advantage for America’s security far into the future. First, NATO’s formidable conventional and nuclear forces are the most effective way to **protect North America and Europe** — the **heart of the democratic world** — from attack. Threats to our collective security have not vanished in the 21st century. Mr. Putin remains a determined adversary preying on Eastern Europe and American elections. **NATO is a force multiplier**: The United States has allies who will stand by us, while Russia has none. And while it’s true that most of America’s NATO allies need to increase their defense spending under the treaty, they’re not freeloaders: The United States has **relied on NATO allies to strike back against Al Qaeda in Afghanistan and the Islamic State in the Middle East**. European troops have replaced American soldiers in peacekeeping missions in Bosnia and contribute the large majority in Kosovo. Our NATO allies are also getting better about contributing their fair share. They have increased their defense spending by a total of more than $87 billion since Mr. Putin annexed Crimea in 2014. Fourteen more allies will reach NATO’s military spending target — 2 percent of gross domestic product — by 2024. Mr. Trump would be smart to claim credit for this at this week’s summit. A second reason for maintaining the trans-Atlantic alliance is America’s economic future. The European Union is our country’s largest trade partner, and its largest investor. The United States and the European Union are the world’s two largest economies, and can steer global trade to their advantage if they stick together. More than four million Americans work for European companies in the United States. Forty-five of the 50 states export more to Europe than to China. Mr. Trump is right that the two sides are also economic competitors, and trade disputes are inevitable. His predecessors kept this tension in balance lest there be damaging consequences for American businesses, workers and farmers — a good reminder for Mr. Trump, whose ill-conceived trade war with Canada and Europe risks harming the American economy. Third, future American leaders will find Europe is our most capable and willing partner in tackling the biggest threats to global security: **climate change; drug and cybercrime cartels; terrorism; pandemics and mass migration from Africa and the Middle East**. And America’s **NATO allies will continue to be indispensable in safeguarding democracy** and freedom, under assault by Russia and China.

### 1NC – Innovation

#### Space Commercialization drives Tech Innovation in the Status Quo – it provides a unique impetus.

Hampson 17 Joshua Hampson 1-25-2017 “The Future of Space Commercialization” <https://republicans-science.house.gov/sites/republicans.science.house.gov/files/documents/TheFutureofSpaceCommercializationFinal.pdf> (Security Studies Fellow at the Niskanen Center)//Elmer

The size of the space economy is far larger than many may think. In 2015 alone, the global market amounted to $323 billion. Commercial infrastructure and systems accounted for 76 percent of that 9 total, with satellite television the largest subsection at $95 billion. The global space launch market’s 10 11 share of that total came in at $6 billion dollars. It can be hard to disaggregate how space benefits 12 particular national economies, but in 2009 (the last available report), the Federal Aviation Administration (FAA) estimated that commercial space transportation and enabled industries generated $208.3 billion in economic activity in the United States alone. Space is not just about 13 satellite television and global transportation; while not commercial, GPS satellites also underpin personal navigation, such as smartphone GPS use, and timing data used for Internet coordination.14 Without that data, there could be problems for a range of Internet and cloud-based services.15 There is also room for growth. The FAA has noted that while the commercial launch sector has not grown dramatically in the last decade, there are indications that there is latent demand. This 16 demand may catalyze an increase in launches and growth of the wider space economy in the next decade. The Satellite Industry Association’s 2015 report highlighted that their section of the space economy outgrew both the American and global economies. The FAA anticipates that growth to 17 continue, with expectations that small payload launch will be a particular industry driver.18 In the future, emerging space industries may contribute even more the American economy. Space tourism and resource recovery—e.g., mining on planets, moons , and asteroids—in particular may become large parts of that industry. Of course, their viability rests on a range of factors, including costs, future regulation, international problems, and assumptions about technological development. However, there is increasing optimism in these areas of economic production. But the space economy is not just about what happens in orbit, or how that alters life on the ground. The growth of this economy can also contribute to new innovations across all walks of life. Technological Innovation Innovation is generally hard to predict; some new technologies seem to come out of nowhere and others only take off when paired with a new application. It is difficult to predict the future, but it is reasonable to expect that a growing space economy would open opportunities for technological and organizational innovation. In terms of technology, the difficult environment of outer space helps incentivize progress along the margins. Because each object launched into orbit costs a significant amount of money—at the moment between $27,000 and $43,000 per pound, though that will likely drop in the future —each 19 reduction in payload size saves money or means more can be launched. At the same time, the ability to fit more capability into a smaller satellite opens outer space to actors that previously were priced out of the market. This is one of the reasons why small, affordable satellites are increasingly pursued by companies or organizations that cannot afford to launch larger traditional satellites. These small 20 satellites also provide non-traditional launchers, such as engineering students or prototypers, the opportunity to learn about satellite production and test new technologies before working on a full-sized satellite. That expansion of developers, experimenters, and testers cannot but help increase innovation opportunities. Technological developments from outer space have been applied to terrestrial life since the earliest days of space exploration. The National Aeronautics and Space Administration (NASA) maintains a website that lists technologies that have spun off from such research projects. Lightweight 21 nanotubes, useful in protecting astronauts during space exploration, are now being tested for applications in emergency response gear and electrical insulation. The need for certainty about the resiliency of materials used in space led to the development of an analytics tool useful across a range of industries. Temper foam, the material used in memory-foam pillows, was developed for NASA for seat covers. As more companies pursue their own space goals, more innovations will likely come from the commercial sector. Outer space is not just a catalyst for technological development. Satellite constellations and their unique line-of-sight vantage point can provide new perspectives to old industries. Deploying satellites into low-Earth orbit, as Facebook wants to do, can connect large, previously-unreached swathes of 22 humanity to the Internet. Remote sensing technology could change how whole industries operate, such as crop monitoring, herd management, crisis response, and land evaluation, among others. 23 While satellites cannot provide all essential information for some of these industries, they can fill in some useful gaps and work as part of a wider system of tools. Space infrastructure, in helping to change how people connect and perceive Earth, could help spark innovations on the ground as well. These innovations, changes to global networks, and new opportunities could lead to wider economic growth.

#### Strong Innovation solves Extinction.

Matthews 18 Dylan Matthews 10-26-2018 “How to help people millions of years from now” <https://www.vox.com/future-perfect/2018/10/26/18023366/far-future-effective-altruism-existential-risk-doing-good> (Co-founder of Vox, citing Nick Beckstead @ Rutgers University)//Re-cut by Elmer

If you care about improving human lives, you should overwhelmingly care about those quadrillions of lives rather than the comparatively small number of people alive today. The 7.6 billion people now living, after all, amount to less than 0.003 percent of the population that will live in the future. It’s reasonable to suggest that those quadrillions of future people have, accordingly, hundreds of thousands of times more moral weight than those of us living here today do. That’s the basic argument behind Nick Beckstead’s 2013 Rutgers philosophy dissertation, “On the overwhelming importance of shaping the far future.” It’s a glorious mindfuck of a thesis, not least because Beckstead shows very convincingly that this is a conclusion any plausible moral view would reach. It’s not just something that weird utilitarians have to deal with. And Beckstead, to his considerable credit, walks the walk on this. He works at the Open Philanthropy Project on grants relating to the far future and runs a charitable fund for donors who want to prioritize the far future. And arguments from him and others have turned “long-termism” into a very vibrant, important strand of the effective altruism community. But what does prioritizing the far future even mean? The most literal thing it could mean is preventing human extinction, to ensure that the species persists as long as possible. For the long-term-focused effective altruists I know, that typically means identifying concrete threats to humanity’s continued existence — like unfriendly artificial intelligence, or a pandemic, or global warming/out of control geoengineering — and engaging in activities to prevent that specific eventuality. But in a set of slides he made in 2013, Beckstead makes a compelling case that while that’s certainly part of what caring about the far future entails, approaches that address specific threats to humanity (which he calls “targeted” approaches to the far future) have to complement “broad” approaches, where instead of trying to predict what’s going to kill us all, you just generally try to keep civilization running as best it can, so that it is, as a whole, well-equipped to deal with potential extinction events in the future, not just in 2030 or 2040 but in 3500 or 95000 or even 37 million. In other words, caring about the far future doesn’t mean just paying attention to low-probability risks of total annihilation; it also means acting on pressing needs now. For example: We’re going to be better prepared to prevent extinction from AI or a supervirus or global warming if society as a whole makes a lot of scientific progress. And a significant bottleneck there is that the vast majority of humanity doesn’t get high-enough-quality education to engage in scientific research, if they want to, which reduces the **odds that we have enough trained scientists to come up with the breakthroughs** we need as a civilization to survive and thrive. So maybe one of the best things we can do for the far future is to improve school systems — here and now — to harness the group economist Raj Chetty calls “lost Einsteins” (potential innovators who are thwarted by poverty and inequality in rich countries) and, more importantly, the hundreds of millions of kids in developing countries dealing with even worse education systems than those in depressed communities in the rich world. What if living ethically for the far future means living ethically now? Beckstead mentions some other broad, or very broad, ideas (these are all his descriptions): Help make computers faster so that people everywhere can work more efficiently Change intellectual property law so that technological innovation can happen more quickly Advocate for open borders so that people from poorly governed countries can move to better-governed countries and be more productive Meta-research: improve incentives and norms in academic work to better advance human knowledge Improve education Advocate for political party X to make future people have values more like political party X ”If you look at these areas (economic growth and technological progress, access to information, individual capability, social coordination, motives) a lot of everyday good works contribute,” Beckstead writes. “An implication of this is that a lot of everyday good works are good from a broad perspective, even though hardly anyone thinks explicitly in terms of far future standards.” Look at those examples again: It’s just a list of what normal altruistically motivated people, not effective altruism folks, generally do. Charities in the US love talking about the lost opportunities for innovation that poverty creates. Lots of smart people who want to make a difference become scientists, or try to work as teachers or on improving education policy, and lord knows there are plenty of people who become political party operatives out of a conviction that the moral consequences of the party’s platform are good. All of which is to say: Maybe effective altruists aren’t that special, or at least maybe we don’t have access to that many specific and weird conclusions about how best to help the world. If the far future is what matters, and generally trying to make the world work better is among the best ways to help the far future, then effective altruism just becomes plain ol’ do-goodery.

## Case

#### Public space tourism thumps—they will fill in mass launch means black carbon and UV impacts are inevitable

Seedhouse 18 [Erik, editor at the Encyclopedia Britannica, “Space Tourism” https://www.britannica.com/explore/space/space-tourism/]

Space tourism, recreational space travel, either on established government-owned vehicles such as the Russian Soyuz and the International Space Station (ISS) or on a growing number of vehicles fielded by private companies. Since the flight of the world’s first space tourist, American businessman Dennis Tito, on April 28, 2001, space tourism has gained new prominence as more suborbital and orbital tourism opportunities have become available. Orbital space tourism The advent of space tourism occurred at the end of the 1990s with a deal between the Russian company MirCorp and the American company Space Adventures Ltd. MirCorp was a private venture in charge of the space station Mir. To generate income for maintenance of the aging space station, MirCorp decided to sell a trip to Mir, and Tito became its first paying passenger. However, before Tito could make his trip, the decision was made to deorbit Mir, and—after the intervention of Space Adventures Ltd.—the mission was diverted to the ISS. Tito, who paid $20 million for his flight on the Russian spacecraft Soyuz TM-32, spent seven days on board the ISS and is considered the world’s first space tourist. However, given the arduous training required for his mission, Tito objected to the use of the word tourist, and since his flight the term spaceflight participant has been more often used to distinguish commercial space travelers from career astronauts.

#### No extinction – it takes 12 degrees without adaptation

Farquhar et al 17 [Sebastian Farquhar (PhD Candidate in Philosophy at Oxford and Project Manager at Future of Humanity Institute), John Halstead (climate activist and one of the co-founders of 350 Indiana-Calumet), Owen Cotton-Barratt (PhD in pure mathematics at Oxford. Previously worked as an academic mathematician and as Director of Research at the Centre for Effective Altruism), Stefan Schubert (Researcher at Department of Experimental Psychology at University of Oxford), Haydn Belfield (Associate Fellow at the Leverhulme Centre for the Future of Intelligence. He has a background in policy and politics, including as a Senior Parliamentary Researcher to a British Shadow Cabinet Minister, as a Policy Associate to the University of Oxford’s Global Priorities Project, and a degree in Philosophy, Politics and Economics from Oriel College, University of Oxford), Andrew Snyder-Beattie (Director of Research at the Future of Humanity Institute at Oxford, Holds degrees in biomathematics and economics and is currently pursuing a PhD in Zoology at Oxford), Existential Risk: Diplomacy and Governance, Global Priorities Project (Bostrom’s Institute), 2017-01-23, https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf] TDI

The most likely levels of global warming are very unlikely to cause human extinction.15 The existential risks of climate change instead stem from tail risk climate change – the low probability of extreme levels of warming – and interaction with other sources of risk. It is impossible to say with confidence at what point global warming would become severe enough to pose an existential threat. Research has suggested that warming of 11-12°C would render most of the planet uninhabitable,16 and would completely devastate agriculture.17 This would pose an extreme threat to human civilisation as we know it.18 Warming of around 7°C or more could potentially produce conflict and instability on such a scale that the indirect effects could be an existential risk, although it is extremely uncertain how likely such scenarios are.19 Moreover, the timescales over which such changes might happen could mean that humanity is able to adapt enough to avoid extinction in even very extreme scenarios. The probability of these levels of warming depends on eventual greenhouse gas concentrations. According to some experts, unless strong action is taken soon by major emitters, it is likely that we will pursue a medium-high emissions pathway.20 If we do, the chance of extreme warming is highly uncertain but appears non-negligible. Current concentrations of greenhouse gases are higher than they have been for hundreds of thousands of years,21 which means that there are significant unknown unknowns about how the climate system will respond. Particularly concerning is the risk of positive feedback loops, such as the release of vast amounts of methane from melting of the arctic permafrost, which would cause rapid and disastrous warming.22 The economists Gernot Wagner and Martin Weitzman have used IPCC figures (which do not include modelling of feedback loops such as those from melting permafrost) to estimate that if we continue to pursue a medium-high emissions pathway, the probability of eventual warming of 6°C is around 10%,23 and of 10°C is around 3%.24 These estimates are of course highly uncertain. It is likely that the world will take action against climate change once it begins to impose large costs on human society, long before there is warming of 10°C. Unfortunately, there is significant inertia in the climate system: there is a 25 to 50 year lag between CO2 emissions and eventual warming,25 and it is expected that 40% of the peak concentration of CO2 will remain in the atmosphere 1,000 years after the peak is reached.26 Consequently, it is impossible to reduce temperatures quickly by reducing CO2 emissions. If the world does start to face costly warming, the international community will therefore face strong incentives to find other ways to reduce global temperatures.

#### No Ozone Impact.

Ridley 14 (Matthew White Ridley, BA and PhD in Zoology from Oxford. “THE OZONE HOLE WAS EXAGGERATED AS A PROBLEM,” *Rational Optimist*, 9/25/14, <http://www.rationaloptimist.com/blog/the-ozone-hole-was-exaggerated-as-a-problem.aspx>) dwc 19

Serial hyperbole does the environmental movement no favours My recent Times column argued that the alleged healing of the ozone layer is exaggerated, but so was the impact of the ozone hole over Antarctica: The ozone layer is healing. Or so said the news last week. Thanks to a treaty signed in Montreal in 1989 to get rid of refrigerant chemicals called chlorofluorocarbons (CFCs), the planet’s stratospheric sunscreen has at last begun thickening again. Planetary disaster has been averted by politics. For reasons I will explain, this news deserves to be taken with a large pinch of salt. You do not have to dig far to find evidence that the ozone hole was never nearly as dangerous as some people said, that it is not necessarily healing yet and that it might not have been caused mainly by CFCs anyway. The timing of the announcement was plainly political: it came on the 25th anniversary of the treaty, and just before a big United Nations climate conference in New York, the aim of which is to push for a climate treaty modelled on the ozone one. Here’s what was actually announced last week, in the words of a Nasa scientist, Paul Newman: “From 2000 to 2013, ozone levels climbed 4 per cent in the key mid-northern latitudes.” That’s a pretty small change and it is in the wrong place. The ozone thinning that worried everybody in the 1980s was over Antarctica. Over northern latitudes, ozone concentration has been falling by about 4 per cent each March before recovering. Over Antarctica, since 1980, the ozone concentration has fallen by 40 or 50 per cent each September before the sun rebuilds it. So what’s happening to the Antarctic ozone hole? Thanks to a diligent blogger named Anthony Watts, I came across a press release also from Nasa about nine months ago, which said: “ Two new studies show that signs of recovery are not yet present, and that temperature and winds are still driving any annual changes in ozone hole size.” As recently as 2006, Nasa announced, quoting Paul Newman again, that the Antarctic ozone hole that year was “the largest ever recorded”. The following year a paper in Nature magazine from Markus Rex, a German scientist, presented new evidence that suggested CFCs may be responsible for less than 40 per cent of ozone destruction anyway. Besides, nobody knows for sure how big the ozone hole was each spring before CFCs were invented. All we know is that it varies from year to year. How much damage did the ozone hole ever threaten to do anyway? It is fascinating to go back and read what the usual hyperventilating eco-exaggerators said about ozone thinning in the 1980s. As a result of the extra ultraviolet light coming through the Antarctic ozone hole, southernmost parts of Patagonia and New Zealand see about 12 per cent more UV light than expected. This means that the weak September sunshine, though it feels much the same, has the power to cause sunburn more like that of latitudes a few hundred miles north. Hardly Armageddon. The New York Times reported “an increase in Twilight Zone-type reports of sheep and rabbits with cataracts” in southern Chile. Not to be outdone, Al Gore wrote that “hunters now report finding blind rabbits; fisherman catch blind salmon”. Zoologists briefly blamed the near extinction of many amphibian species on thin ozone. Melanoma in people was also said to be on the rise as a result. This was nonsense. Frogs were dying out because of a fungal disease spread from Africa — nothing to do with ozone. Rabbits and fish blinded by a little extra sunlight proved to be as mythical as unicorns. An eye disease in Chilean sheep was happening outside the ozone-depleted zone and was caused by an infection called pinkeye — nothing to do with UV light. And melanoma incidence in people actually levelled out during the period when the ozone got thinner.

### 1NC — Cap Good — Sustainability

#### Err aff — their doomerism is empirically always wrong.

Zitelmann ‘20 — holds doctorates in history and sociology. He initially worked at the Central Institute for Social Science Research at the Free University of Berlin before taking up the position of editor-in-chief of Ullstein-Propyläen. (Rainer; Published: July 27, 2020; "Anyone Who Doesn’t Know The Following Facts About Capitalism Should Learn Them"; Forbes; Accessed: December 31, 2021; <https://www.forbes.com/sites/rainerzitelmann/2020/07/27/anyone-who-doesnt-know-the-following-facts-about-capitalism-should-learn-them/?sh=4712d1863dc1)//CYang>

Prophets Of Doom Have Always Got It Wrong

If there is one thing we can learn from history, it is that doom-mongers have always been wrong. In 1968, a highly acclaimed book was published with the provocative title The Population Bomb. The book stated that the 1970s would see the world plagued by numerous famines, which would result in hundreds of millions of people starving to death. Another book, Famine 1975!, predicted that famine would reach catastrophic proportions within 15 years. While anti-capitalists frequently glorify the past, they always regard the future with a strong sense of doom and gloom. In 1972, for example, the highly influential Club of Rome warned that emissions of practically every pollutant now seemed to be rising exponentially. In fact, in the decades to come, pollution would not only stop growing, but actually decrease. And drastically so. Total emissions from the world’s six leading air polluters fell by more than two-thirds between 1980 and 2014.

The Environment

Norberg also confirms the extent to which environmental conditions have improved over the last few decades. While acknowledging the impact of climate change, he also points out that the amount of energy needed to produce one unit of prosperity in the Western world has decreased by 1% per year every year over the past 150 years. As he demonstrates, there are ways and means to cut CO2 emissions without reducing growth, trade and access to energy. These include more efficient production processes, less energy-intensive construction methods, new energy sources and fuels. As he also explains, scientists and companies are now working on fourth-generation nuclear power plants, all of which have passive safety systems, that can generate hundreds of times more energy from the same resources and do not have the same waste problems as their predecessors. Stephen Pinker, in his book Enlightenment Now!, also confirms that all manner of environmental problems have declined sharply in recent decades, despite the fact that most people believe they have actually increased. Pinker also sees nuclear energy as the most important means of combating climate change. In the past, according to Pinker, people’s innovative power to solve problems has repeatedly been underestimated — but a departure from progress and growth, he warns, will lead to the opposite of what environmental and climate protectors hope for.

Redistribution?

In his book, Norberg cites a seemingly endless array of facts that prove the benefits of economic progress. The weekly hours worked by the average American are now 25 hours less than they were in 1860. At the same time, people enter the world of work later in life, retire earlier and live longer after retirement. All of these positive developments are the result of technical progress and an economic system that made this progress possible in the first place. A study of 180 countries over four decades shows that the increase in income for the poorest in a society is primarily due to growth rather than redistribution: 77% of income growth for the poorest 40% of a population are directly linked to the average growth of a country. Capitalism is not the problem, as anti-capitalists tell us. In fact, it is capitalism that has very successfully solved many of the world’s most serious problems over the last two centuries.

### 1NC — Cap Good — Environment

#### Capitalism solves the environment — prefer the Yale EPI and statistical indicators.

Zitelmann ‘20 — holds doctorates in history and sociology. He initially worked at the Central Institute for Social Science Research at the Free University of Berlin before taking up the position of editor-in-chief of Ullstein-Propyläen. (Rainer; Published: July 13, 2020; "‘System Change Not Climate Change’: Capitalism And Environmental Destruction"; Forbes; Accessed: December 31, 2021; [edited for gendered language] https://www.forbes.com/sites/rainerzitelmann/2020/07/13/system-change-not-climate-change-capitalism-and-environmental-destruction/?sh=7c423bcb6d72)//CYang

The Price Of Growth — Destruction Of The Environment?

But isn’t there a price for this growth: environment devastation? Of course, nobody would deny that industrialization causes environmental problems. But the assertion that growth automatically leads to ever accelerating environmental degradation is simply false. Yale University’s Environmental Performance Index (EPI) uses 16 indicators to rank countries on environmental health, air quality, water, biodiversity, natural resources and pollution. These indicators have been selected to reflect both the current baseline and the dynamics of national ecosystems. One of the Index’s most striking findings is that there is a strong correlation between a state’s wealth and its environmental performance. Most developed capitalist countries achieve high environmental standards. Those countries with the worst EPI scores, such as Ethiopia, Mali, Mauritania, Chad and Niger, are all poor. They have both low investment capacity for infrastructure, including water and sanitation, and tend to have weak environmental regulatory authorities.

Contrary to prevailing perceptions, industrial development and technological advances have contributed significantly to relieving the burden on the environment. Both Indur Goklany in his book The Improving State of the World and Steven Pinker in chapter ten (“The Environment”) of his book Enlightenment Now demonstrate that we are not only living longer, healthier lives in unprecedented prosperity, but we are also doing so on a comparatively clean planet.

Researchers have confirmed that economic freedom — in other words, more capitalism — leads to higher, not lower, environmental quality.

Every year, the Heritage Foundation compiles its Index of Economic Freedom, which analyzes individual levels of economic freedom, and thus capitalism, in countries around the world. The Heritage Foundation’s researchers also measure the correlation between each country’s environmental performance and its economic freedom. The results couldn’t be clearer: the world’s most economically free countries achieve the highest environmental performance rankings with an average score of 76.1, followed by the countries that are “mostly free,” which score an average of 69.5. In stark contrast, the economically “repressed” and “mostly unfree” countries all score less than 50 for environmental performance.

Is Government The Best Solution To Environmental Problems?

Anti-capitalists frequently claim that central government is the best solution to environmental problems. And there is no doubt that state regulations to safeguard the environment are important. But state regulations, cited by anti-capitalists as a panacea for environmental issues, often achieve the opposite of what they were intended to do. Hardly any other country in the world touts its green credentials as much as Germany. According to even the most conservative estimates, Germany’s so-called “energy transition” is set to cost a total of almost €500 billion by 2025.

But the results of this massive investment is sobering, as an analysis by McKinsey reveals, “Germany is set to miss several key energy transition targets for the year 2020, and the country’s high power supply security is at risk unless new generation capacity and grid infrastructure are built in time for the coal and nuclear exit and electrification of transportation networks is accelerated.”

For decades, environmentalists in Germany focused on shutting down nuclear power plants. However, the phasing out of nuclear power has left Germany in a poor position in terms of CO2 emissions compared to other countries. It is not without good reason that Germany’s energy policy has been described as the dumbest in the world.

The latest generation of nuclear power plants are much safer than their predecessors. Despite what environmentalists might claim, impartial calculations have confirmed that it is impossible to meet the world’s energy needs from solar and wind power alone. Enlightened environmentalists are therefore now calling for nuclear power to be rightfully included in the fight against climate change. And yet, this is precisely what is being prevented in Germany by politicians — not capitalism. This example, just one of many, shows that government environmental policy is often ineffective. In some instances, it even achieves the opposite of what it was originally intended to, i.e. it exacerbates existing environmental problems.

It is also wrong to think that capitalism necessarily leads to ever greater waste of limited natural resources. Just take the smartphone for example, one of the most environmentally friendly of capitalism’s many achievements. With just one small device, a whole plethora of devices that used to consume resources in the past, such as the telephone, camera, calculator, navigation system, dictation machine, alarm clock, flashlight and many others, have been replaced. Smartphones also help to reduce the consumption of paper as many people choose not to take notes on paper and, for example, use their iPhone instead of a calendar to enter appointments.

Those who call for “system change” instead of “climate change” do not usually say which system they would prefer. All they are really sure of is that any new system should not be based on free market economics and that the state should play the decisive role. The simple fact is that socialism has failed in every country every time it has been tried — and socialism has damaged the environment more than any capitalist system. Murray Feshbach documents examples of the environmental destruction wrought by socialism in his book Ecological Disaster. Cleaning Up the Hidden Legacy of the Soviet Regime. As the book progresses through chapters such as “A Nuclear Plague,” “Dying Lakes, Rivers, and Inland Seas” and “Pollution of the Air and Land,” it becomes clear that this non-capitalist system was responsible for the greatest environmental destruction in history. Anti-capitalists may well reply that they do not want a system like the Soviet Union. And yet, they cannot name a single real-world system — at any time in the history of [humankind] ~~mankind~~ — that provides better environmental solutions than capitalism.

### Framing

#### Extinction is the only coherent and egalitarian framework – prefer it

Khan 18 (Risalat, activist and entrepreneur from Bangladesh passionate about addressing climate change, biodiversity loss, and other existential challenges. He was featured by The Guardian as one of the “young climate campaigners to watch” (2015). As a campaigner with the global civic movement Avaaz (2014-17), Risalat was part of a small core team that spearheaded the largest climate marches in history with a turnout of over 800,000 across 2,000 cities. After fighting for the Paris Agreement, Risalat led a campaign joined by over a million people to stop the Rampal coal plant in Bangladesh to protect the Sundarbans World Heritage forest, and elicited criticism of the plant from Crédit Agricolé through targeted advocacy. Currently, Risalat is pursuing an MPA in Environmental Science and Policy at Columbia University as a SIPA Environmental Fellow, “5 reasons why we need to start talking about existential risks,” https://www.weforum.org/agenda/2018/01/5-reasons-start-talking-existential-risks-extinction-moriori/)

Infinite future possibilities I find the story of the Moriori profound. It teaches me two lessons. Firstly, that human culture is far from immutable. That we can struggle against our baser instincts. That we can master them and rise to unprecedented challenges. Secondly, that even this does not make us masters of our own destiny. We can make visionary choices, but the future can still surprise us. This is a humbling realization. Because faced with an uncertain future, the only wise thing we can do is prepare for possibilities. Standing at the launch pad of the Fourth Industrial Revolution, the possibilities seem endless. They range from an era of abundance to the end of humanity, and everything in between. How do we navigate such a wide and divergent spectrum? I am an optimist. From my bubble of privilege, life feels like a rollercoaster ride full of ever more impressive wonders, even as I try to fight the many social injustices that still blight us. However, the accelerating pace of change amid uncertainty elicits one fundamental observation. Among the infinite future possibilities, only one outcome is truly irreversible: extinction. Concerns about extinction are often dismissed as apocalyptic alarmism. Sometimes, they are. But repeating that mankind is still here after 70 years of existential warning about nuclear warfare is a straw man argument. The fact that a 1000-year flood has not happened does not negate its possibility. And there have been far too many nuclear near-misses to rest easy. As the World Economic Forum’s Annual Meeting in Davos discusses how to create a shared future in a fractured world, here are five reasons why the possibility of existential risks should raise the stakes of conversation: 1. Extinction is the rule, not the exception More than 99.9% of all the species that ever existed are gone. Deep time is unfathomable to the human brain. But if one cares to take a tour of the billions of years of life’s history, we find a litany of forgotten species. And we have only discovered a mere fraction of the extinct species that once roamed the planet. In the speck of time since the first humans evolved, more than 99.9% of all the distinct human cultures that have ever existed are extinct. Each hunter-gatherer tribe had its own mythologies, traditions and norms. They wiped each other out, or coalesced into larger formations following the agricultural revolution. However, as major civilizations emerged, even those that reached incredible heights, such as the Egyptians and the Romans, eventually collapsed. It is only in the very recent past that we became a truly global civilization. Our interconnectedness continues to grow rapidly. “Stand or fall, we are the last civilization”, as Ricken Patel, the founder of the global civic movement Avaaz, put it. 2. Environmental pressures can drive extinction More than 15,000 scientists just issued a ‘warning to humanity’. They called on us to reduce our impact on the biosphere, 25 years after their first such appeal. The warning notes that we are far outstripping the capacity of our planet in all but one measure of ozone depletion, including emissions, biodiversity, freshwater availability and more. The scientists, not a crowd known to overstate facts, conclude: “soon it will be too late to shift course away from our failing trajectory, and time is running out”. In his 2005 book Collapse, Jared Diamond charts the history of past societies. He makes the case that overpopulation and resource use beyond the carrying capacity have often been important, if not the only, drivers of collapse. Even though we are making important incremental progress in battles such as climate change, we must still achieve tremendous step changes in our response to several major environmental crises. We must do this even while the world’s population continues to grow. These pressures are bound to exert great stress on our global civilization. 3. Superintelligence: unplanned obsolescence? Imagine a monkey society that foresaw the ascendance of humans. Fearing a loss of status and power, it decided to kill the proverbial Adam and Eve. It crafted the most ingenious plan it could: starve the humans by taking away all their bananas. Foolproof plan, right? This story describes the fundamental difficulty with superintelligence. A superintelligent being may always do something entirely different from what we, with our mere mortal intelligence, can foresee. In his 2014 book Superintelligence, Swedish philosopher Nick Bostrom presents the challenge in thought-provoking detail, and advises caution. Bostrom cites a survey of industry experts that projected a 50% chance of the development of artificial superintelligence by 2050, and a 90% chance by 2075. The latter date is within the life expectancy of many alive today. Visionaries like Stephen Hawking and Elon Musk have warned of the existential risks from artificial superintelligence. Their opposite camp includes Larry Page and Mark Zuckerberg. But on an issue that concerns the future of humanity, is it really wise to ignore the guy who explained the nature of space to us and another guy who just put a reusable rocket in it? 4. Technology: known knowns and unknown unknowns Many fundamentally disruptive technologies are coming of age, from bioengineering to quantum computing, 3-D printing, robotics, nanotechnology and more. Lord Martin Rees describes potential existential challenges from some of these technologies, such as a bioengineered pandemic, in his book Our Final Century. Imagine if North Korea, feeling secure in its isolation, could release a virulent strain of Ebola, engineered to be airborne. Would it do it? Would ISIS? Projecting decades forward, we will likely develop capabilities that are unthinkable even now. The unknown unknowns of our technological path are profoundly humbling. 5. 'The Trump Factor' Despite our scientific ingenuity, we are still a confused and confusing species. Think back to two years ago, and how you thought the world worked then. Has that not been upended by the election of Donald Trump as US President, and everything that has happened since? The mix of billions of messy humans will forever be unpredictable. When the combustible forces described above are added to this melee, we find ourselves on a tightrope. What choices must we now make now to create a shared future, in which we are not at perpetual risk of destroying ourselves? Common enemy to common cause Throughout history, we have rallied against the ‘other’. Tribes have overpowered tribes, empires have conquered rivals. Even today, our fiercest displays of unity typically happen at wartime. We give our lives for our motherland and defend nationalistic pride like a wounded lion. But like the early Morioris, we 21st-century citizens find ourselves on an increasingly unstable island. We may have a violent past, but we have no more dangerous enemy than ourselves. Our task is to find our own Nunuku’s Law. Our own shared contract, based on equity, would help us navigate safely. It would ensure a future that unleashes the full potential of our still-budding human civilization, in all its diversity. We cannot do this unless we are humbly grounded in the possibility of our own destruction. Survival is life’s primal instinct. In the absence of a common enemy, we must find common cause in survival. Our future may depend on whether we realize this.