# 1NC

### 1NC – Innovation DA

#### The private sector in space is growing and investors have poured hundreds of millions into the industry based on projected growth – the aff reverses that and crashes investment

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Space is hot. The billionaire “space barons” — Elon Musk, Jeff Bezos and Richard Branson — [have given the industry a cachet](https://www.washingtonpost.com/technology/2020/11/11/nasa-spacex-crew1-launch-space-station/?itid=lk_inline_manual_3) not seen since the Apollo era of the 1960s and ’70s, with Branson and Bezos flying to the edge of space on their own spacecraft and Musk’s SpaceX becoming the dominant supplier of people and cargo to the International Space Station. Investors are fearful of missing out. That’s turned out to be great news for the space companies hoping to get a piece of the satellite-launch business. But it’s also caused analysts to warn that space is still a nascent and risky business, one rocket explosion away from disaster. Hundreds of millions of dollars are now flowing to an industry long viewed as too risky for serious investment. New start-ups are blossoming in an explosion reminiscent of the early days of tech, when money poured into Silicon Valley start-ups at the beginning of the Internet age. Gen. John “Jay” Raymond, the chief of space operations for the U.S. Space Force, even predicted during a recent speech that investment in the commercial space sector would drive “a second Golden Age of space.” Over the past decade, investors pumped $200 billion into 1,500 space companies around the world, according to an analysis done by [Space Capital, a space investment firm](https://www.spacecapital.com/). Investment in start-up space companies reached $7.6 billion last year, a 16 percent increase from 2019, [according to Bryce Space and Technology](https://brycetech.com/download.php?f=Bryce_Start_Up_Space_2021.pdf), a consulting firm. “This level of investment is consistent with the 6-year trend beginning in 2015 of unprecedented levels of venture capital driven investment flowing into the space industry,” the company said. That has helped drive a $447 billion global space economy that grew 4.4 percent last year, [according to the Space Foundation](https://spacefoundation.org/), an advocacy group. Over the past 10 years, the space economy has grown 55 percent, according to the Foundation, which said the commercial space products and services market is valued at $219 billion. In addition to those investments, several space ventures have gone public over the past year through special purpose acquisition companies, or SPACs. Branson’s Virgin Galactic space tourism company [was one of the first high-profile space ventures](https://www.washingtonpost.com/business/2019/07/09/virgin-galactic-announces-plans-become-first-publicly-listed-space-company/?itid=lk_inline_manual_16) to go public through a SPAC when it merged with a New York hedge fund in 2019. Since then, SPACs have “exploded in popularity,” [according to a report by analysts at Avascent and Jefferies](https://www.avascent.com/news-insights/avascent-apogee/space-spacs-valuation-in-zero-g/), a financial advisory firm specializing in aerospace, which found that the mergers across all industries raised $83 billion in 2020 compared to $14 billion the year before. But the stocks can be volatile. In the last couple of weeks, for example, the stocks of two space companies took hits when they suffered problems. Shares of Virgin Galactic dipped after the Federal Aviation Administration said it was investigating the company after its flight, with Branson on board, went off course. The probe was first reported by the [New Yorker](https://www.newyorker.com/news/news-desk/the-red-warning-light-on-richard-bransons-space-flight). Astra, a start-up rocket company based outside of San Francisco, saw its stock drop after a launch attempt failed to reach orbit last month. Still, more than a dozen companies have gone public, or announced they would in recent months. They include Planet, which has built a constellation of satellites to take images of the Earth, and Astra. [Rocket Lab, which has launched dozens of small satellites](https://www.washingtonpost.com/news/innovations/wp/2017/11/09/ready-to-book-your-satellite-launch-online-the-rocket-industry-looks-to-run-more-like-an-airline/?itid=lk_inline_manual_21) on its Electron rocket, started trading on the Nasdaq last month. And Virgin Orbit, [which “air launches” a rocket](https://www.washingtonpost.com/technology/2021/01/17/richard-branson-virgin-orbit-launch-success/?itid=lk_inline_manual_21) designed to fly satellites by dropping it from the wing of a 747 airplane, announced that it would go public through a SPAC and that it had raised $100 million in another funding round backed by Boeing and AE Industrial Partners. International companies also are driving growth, analysts said. “Going forward, I would expect to see it becoming increasingly international,” said Nickolas Boensch, a program manager at Bryce. “China, Japan, the U.K. have been huge players here, and there is something attractive to having a domestic capability.”

#### The future of the economy is based on the private-sector driven success of space exploration

Clark 20 – President of U.S. Chamber of Commerce with an MBA from Georgetown University. [Suzanne, “Space is our new economic frontier. The US can’t afford to lose out”, CNN Business, 3/02/20, [https://www.cnn.com/2020/03/02/perspectives/space-economic-frontier/index.html]//AV](https://www.cnn.com/2020/03/02/perspectives/space-economic-frontier/index.html%5d//AV)

President Trump's budget, which was released last month, outlines several moonshots that are unlikely to pass a divided Congress. But there's one in particular that both Republicans and Democrats should support wholeheartedly: the $25.2 billion request to fund NASA, a 12% boost [over the prior year](https://www.cnn.com/2020/02/10/tech/nasa-budget-moon-landing-artemis-scn/index.html). The future of our economy depends on the vigorous pursuit of space exploration. And with NASA leading the way, the potential for growth — like space itself — has no limits. Since NASA's launch, American space exploration has always been a bipartisan venture. It was President Kennedy who announced our goal of going to the moon, but it was President Nixon who brought that goal to fruition. Reaching the next milestone in interplanetary travel requires a commitment from our leaders that spans political parties and administrations. And with a new space race getting underway — one that could prove even more consequential than the last — NASA needs bipartisan support from Congress today more than ever. Space is the most promising industry to arise since the birth of the tech sector, with growth projected to skyrocket in the coming years led by companies such as Boeing and Northrop Grumman, and new entrants, such as Virgin Galactic, SpaceX and Blue Origin. [According to US Chamber of Commerce economists](https://www.uschamber.com/series/above-the-fold/the-space-economy-industry-takes), the industry will be worth at least $1.5 trillion by 2040. While no one can fully grasp what our economy will look like 20 years from now, one thing is certain: the private sector space industry will transform how societies across the globe live, communicate and do business. In fact, it already has. Nearly every company depends on space-enabled technologies for day-to-day operations — whether they use satellite communications, remote sensing or location-based services. Businesses across multiple sectors are leveraging these and other technologies to stake their claim in this new economic frontier. Pharmaceutical companies such as Merck and Sanofi, for example, are conducting experiments in low-Earth orbit [aboard the International Space Station](https://www.issnationallab.org/research-on-the-iss/areas-of-research/life-sciences/) to evaluate the potential advantages of microgravity in developing new drug treatments that will help people live longer, healthier lives. Companies, such as Bigelow, are committed to making [off-Earth habitation](https://www.cnn.com/2016/05/05/tech/way-up-there-where-will-we-live-space/index.html) a reality. Even retailers are getting in on the action, with companies like Target [funding research](https://www.iss-casis.org/cottonsustainabilitychallenge/) on the International Space Station to produce more sustainable forms of cotton. Lunar colonies, asteroid mining and interplanetary travel — once the stuff of science fiction — could become a reality. But for any of that to happen, we need sustained and meaningful action from members of Congress. They can start by meeting the president's request for NASA funding. Included in the White House budget is [$12.4 billion](https://www.cnn.com/2020/02/10/tech/nasa-budget-moon-landing-artemis-scn/index.html) specifically for lunar exploration that would include landing systems, continued development of the Space Launch System (SLS) and the Orion crew module. These spacecraft will allow us to shuttle people and equipment to the moon and back. They will take us not only beyond Earth's orbit but also into the next phase of commercial space development. Most importantly, they will ensure that the United States continues to outpace competitors like China and Russia in the space race. Our country must be the vanguard in exploring these new economic frontiers. Planting the American flag in the private sector space industry will help create the jobs of the future and allow the United States to lead the formation of best practices that will govern the industry for decades to come. Some might ask if returning to the moon is worth the expense. The answer is undeniably yes. Providing NASA with the resources it needs to succeed is a small investment that will yield tremendous dividends over time. To start, it would help secure American commercial dominance in a fast-growing industry. It also would be a catalyst for innovation and scientific discovery, with salutary effects that would benefit the entire economy.

#### Econ decline results in nuclear war.

Tønnesson 15 [Tønnesson is a research professor at the Peace Research Institute Oslo (PRIO) in Norway and the leader of the East Asia Peace program at Uppsala University in Sweden.] “Deterrence, interdependence and Sino–US peace.” International Area Studies Review, volume 18, number 3, pgs. 297-311. 2015.

Several recent works on China and Sino–US relations have made substantial contributions to the current understanding of how and under what circumstances a combination of nuclear deterrence and economic interdependence may reduce the risk of war between major powers. At least four conclusions can be drawn from the review above: first, those who say that interdependence may both inhibit and drive conflict are right. Interdependence raises the cost of conflict for all sides but asymmetrical or unbalanced dependencies and negative trade expectations may generate tensions leading to trade wars among inter-dependent states that in turn increase the risk of military conflict (Copeland, 2015: 1, 14, 437; Roach, 2014). The risk may increase if one of the interdependent countries is governed by an inward-looking socio-economic coalition (Solingen, 2015); second, the risk of war between China and the US should not just be analysed bilaterally but include their allies and partners. Third party countries could drag China or the US into confrontation; third, in this context it is of some comfort that the three main economic powers in Northeast Asia (China, Japan and South Korea) are all deeply integrated economically through production networks within a global system of trade and finance (Ravenhill, 2014; Yoshimatsu, 2014: 576); and fourth, decisions for war and peace are taken by very few people, who act on the basis of their future expectations. International relations theory must be supplemented by foreign policy analysis in order to assess the value attributed by national decision-makers to economic development and their assessments of risks and opportunities. If leaders on either side of the Atlantic begin to seriously fear or anticipate their own nation’s decline then they may blame this on external dependence, appeal to anti-foreign sentiments, contemplate the use of force to gain respect or credibility, adopt protectionist policies, and ultimately refuse to be deterred by either nuclear arms or prospects of socioeconomic calamities. Such a dangerous shift could happen abruptly, i.e. under the instigation of actions by a third party – or against a third party. Yet as long as there is both nuclear deterrence and interdependence, the tensions in East Asia are unlikely to escalate to war. As Chan (2013) says, all states in the region are aware that they cannot count on support from either China or the US if they make provocative moves. The greatest risk is not that a territorial dispute leads to war under present circumstances but that changes in the world economy alter those circumstances in ways that render inter-state peace more precarious. If China and the US fail to rebalance their financial and trading relations (Roach, 2014) then a trade war could result, interrupting transnational production networks, provoking social distress, and exacerbating nationalist emotions. This could have unforeseen consequences in the field of security, with nuclear deterrence remaining the only factor to protect the world from Armageddon, and unreliably so. Deterrence could lose its credibility: one of the two great powers might gamble that the other yield in a cyber-war or conventional limited war, or third party countries might engage in conflict with each other, with a view to obliging Washington or Beijing to intervene.

### 1NC – Util

#### The standard is maximizing expected wellbeing – that means using the terminal consequences.

#### Prefer it:

#### 1] Aggregation – every policy benefits some and harms others, so the only way to resolve those differences is doing cost-benefit analysis and seeing which policy maximizes well being for the general population

#### 2] Only consequentialism explains degrees of wrongness—if I break a promise to meet up for lunch, that is not as bad as breaking a promise to take a dying person to the hospital. Only the consequences of breaking the promise explain why the second one is much worse than the first. Intuitions outweigh—they’re the foundational basis for any argument and theories that contradict our intuitions are most likely false even if we can’t deductively determine why.

### Case

### Framework

### Environment